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ABSTRACT

This performance report presents the services and activities provided to youth and adults in secondary and postsecondary vocational education in North Carolina from July 1, 1985, to June 30, 1986. Data are provided to reflect services to special populations, trends, growth in enrollment, student and employer assessment of the value of vocational education, and business/industry participation and contribution to quality control. The report is divided into two parts, secondary and postsecondary. The secondary education part contains three sections. Section I on vocational education opportunities accomplishments contains information on vocational education services and activities for handicapped, disadvantaged, limited English proficient, and sex equity. Section II on program improvement accomplishments contains information on secondary vocational education in the area of new programs, expanded programs, career guidance, personnel development, curriculum development, equipment, research, and other improvement activities. Section III on consumer and homemaking accomplishments contains information on home economics services and activities. The postsecondary education part contains two sections. Section I on vocational education opportunities accomplishments contains information on handicapped, disadvantaged, limited English proficient, adults in need of training and retraining, single parents and homemakers, sex equity, and criminal offenders in correctional institutions. Section II contains information on program improvement accomplishments under a category where limited resources were available for the stated purpose. (YLB)

ED282086

North Carolina Vocational Education

PERFORMANCE REPORT

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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Program Year 1985-86

North Carolina State Board of Education
North Carolina State Board of Community Colleges
Raleigh, North Carolina
27603-1712

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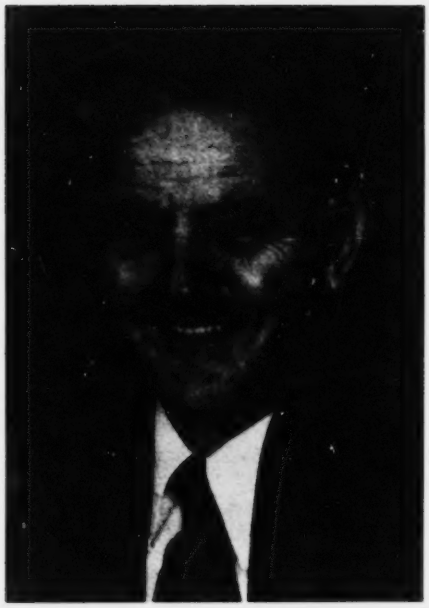
"It is the intent of the General Assembly that vocational education be an integral part of the educational process." The State Board of Education and the State Board of Community Colleges shall administer, through local boards, a comprehensive program of vocational education which shall be available to all students who desire it without regard to race, sex, national origin, or handicap.



A. Craig Phillips
State Superintendent
Department of Public Instruction

Vocational education is intended by the General Assembly of North Carolina to "be an integral part of the educational process." This is significant to understanding the performance of vocational education in this state. Just as we espouse a comprehensive approach to vocational education through a standardized course of study within secondary education, so do we promote a comprehensive approach to secondary vocational education that complements the work of postsecondary vocational and technical education.

To these ends, the North Carolina Vocational Education Performance Report is presented to demonstrate not only how the performance of vocational education meets the standards set forth in the federal Carl D. Perkins Act, but also to show it complements and contributes to the whole educational process for the youth of our state. We encourage you to read the document carefully.

Robert W. Scott
State President
Department of Community Colleges

The North Carolina community college system was created to give adult citizens opportunities to obtain the technical, vocational and basic academic education they need to be full participants in the economic and social life of the state. From its beginnings as a system of industrial education centers and junior colleges, it has focused on that primary mission. Today, over 620,000 individuals are enrolled in all programs, 384,000 in curriculum or continuing education programs which provide specific preparation for an occupation. Institutions provide assessment, counseling and support services to increase student success. College faculty and administrators work closely with business leaders to insure that programs are teaching students what they need to know to become valuable employees. The system's record in vocational education has made it one of the state's major economic development assets.

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INTRODUCTION

This Performance Report presents the services and activities provided the youth and adults in secondary and postsecondary vocational education in North Carolina from July 1, 1985 to June 30, 1986.

It is more than a compliance document for the U. S. Department of Education. It represents the continuous efforts at all levels to improve the quality of education and training for participants in vocational education.

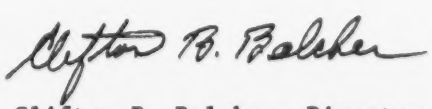
Data are provided to reflect services to special populations, trends, growth in enrollment, student and employer assessment of the value of vocational education, and business/industry participation and contribution to quality control.

The report addresses secondary vocational education and postsecondary vocational education. The federal grant of twenty-four million dollars (PY 1985-86) was shared two-thirds for secondary and one-third for post-secondary. This sharing of federal resources is pursuant to North Carolina General Statute 115C-158. The contents of the report reflect this two-thirds/one-third split and the appropriate clientele served at each level of vocational education.

The report is divided into two parts, Secondary and Postsecondary. The secondary education part contains three sections (I, II, III). The first section (I. Vocational Education Opportunities Accomplishments) contains information on secondary vocational education services and activities for handicapped, disadvantaged, limited English speaking, and sex equity. The second section (II. Program Improvement Accomplishments) contains information on secondary vocational education in the area of new programs, expanded programs, career guidance, personnel development, curriculum development, equipment, research, and other improvement activities. The third section (III. Consumer and Homemaking Accomplishments) contains information on home economics services and activities in secondary education.

The postsecondary education part contains two sections (I, II). The first section (I. Vocational Education Opportunities Accomplishments) contains information on handicapped, disadvantaged, limited English speaking, adults in need of training and retraining, single parents and homemakers, sex equity, and criminal offenders in correctional institutions. The second section (II. Program Improvement Accomplishments) contains information on postsecondary education accomplishments under a category where limited resources were available for the stated purpose.

We congratulate all parties concerned not only in the high level of performance indicated in this report, but also in the sincere desire to coordinate efforts to provide maximum results for the clients served by vocational education.



Clifton B. Belcher, Director
Division of Vocational Education

NORTH CAROLINA
ANNUAL PERFORMANCE REPORT
FOR THE VOCATIONAL EDUCATION STATE-ADMINISTERED PROGRAM
UNDER THE CARL D. PERKINS VOCATIONAL EDUCATION ACT
P.L. 98-524

This report is authorized by 34 CFR 74.82 and covers the twelve month program year July 1 to June 30. It has been prepared in compliance with OMB circular No. 1830-0503.

Program Year 1985-86

STATE BOARD OF EDUCATION
RALEIGH, NORTH CAROLINA
27603-1712

Results and Accomplishments of Expending
Title II - Part A Federal Funds
VOCATIONAL EDUCATION OPPORTUNITIES

The numerical data on special population students enrolled in vocational education that are assisted with federal funds under Title II, Part A and matching state/local funds where required or optionally provided are reflected in Table 1.

I. Vocational Education Opportunities Accomplishments

A. Handicapped - Secondary

1. Number of handicapped receiving additional services in mainstream programs. (See Table 1)

2. Number of handicapped served in separate programs. (See Table 1)

Table 1

ENROLLMENT BY CATEGORY
PY 1985-86
SECONDARY - POSTSECONDARY

Category	Level		Grades 7-8	Grades 9-12	Post-secondary/ Adult	Total
Handicapped	Sec.	M.S.*	2,674	5,444	N/A	8,118
		S.P.**	534	1,763	N/A	2,297
	P-Sec.	M.S.*	N/A	N/A	2,761	2,761
		S.P.**	N/A	N/A	3,314	3,314
Subtotal						
Disadvantaged	Sec.	M.S.*	7,000	14,651	N/A	21,651
		S.P.**	809	1,799	N/A	2,608
	P-Sec.	M.S.*	N/A	N/A	24,031	24,031
		S.P.**	N/A	N/A	6,546	6,546
Subtotal						
LEP	Sec.	M.S.*	82	128	N/A	210
		S.P.**	5	31	N/A	36
	P-Sec.	M.S.*	N/A	N/A	3,119	3,119
		S.P.**	N/A	N/A	N/A	N/A
Subtotal						
Adults	Sec.	M.S.*	N/A	N/A	N/A	N/A
	P-Sec.	M.S.*	N/A	N/A	82,581	82,581
Subtotal						
Single Parents	Sec.		N/A	N/A	N/A	N/A
	P-Sec.		N/A	N/A	21,617	21,617
Subtotal						
Non-Traditional Programs	Sec.				N/A	N/A
	P.Sec.		N/A	N/A	1,959	1,959
Subtotal						
Incarcerated	Sec.		N/A	N/A	N/A	N/A
	P-Sec.		N/A	N/A	2,939	2,939
Subtotal						
Totals	Sec.	M.S.*	9,756	20,223	N/A	29,979
		S.P.**	1,348	3,593	N/A	4,941
	P-Sec.	M.S.*	N/A	N/A	139,007	139,007
		S.P.**	N/A	N/A	9,860	9,860
			11,104	23,816	148,867	183,787
Totals Other Programs	Sec.		103,993	312,784	N/A	416,777
	P-Sec.		N/A	N/A	148,867	N/A

* Mainstream with support services
** Separate program

A. Handicapped - Secondary (continued)

3. Accomplishments in Providing Equal Access for Handicapped

a. Equal access and recruitment

All local education agencies provided assurances in the annual application for funds that handicapped students will be recruited for and enrolled in the full range of vocational education program offerings. This goal was accomplished primarily through the school based committee and outreach activities. During the months of January and February, handicapped students (at the eighth grade level) and their parents were informed of the vocational education programs available in their designated high schools. This information was disseminated through written communication, individual or group counseling sessions, and news media.

b. Least restrictive environment and coordination with special education

Each LEA was assigned at least one individual to work as vocational support service coordinator. It was the responsibility of this individual to work with the placement committee to ensure that students were placed in the most appropriate and least restrictive environment. All vocational placements and supplemental services were planned and coordinated with special education teachers.

Annual applications for funds were planned cooperatively with special education program administrators and signed by a special education representative from the LEA.

c. Assessment and career development

Handicapped students being considered for vocational placement were given a vocational assessment to determine their strengths, weaknesses, and special needs. Upon completion of the assessment, the vocational teacher, vocational support service coordinator, and special education teacher worked cooperatively to establish the student's career development plan.

The career development plan was designed to accomplish three major purposes:

1. To serve as an accountability tool to ensure that all students were properly identified and services were provided;

2. To ensure that all students enrolled in a vocational program were adequately assessed; and

A. Handicapped - Secondary (continued)

3. To ensure that supplemental services and career development needs of individual students were identified and that the local education agency established a method by which services would be provided.

d. Transition from school to work

Transition was the major focus of vocational services during FY 86. A state level transition task force was established to develop a transitional model for statewide implementation. State and regional workshops were held for the purpose of defining roles and responsibilities of all service providers.

These workshops provided information that enabled LEAs to plan for the transition of handicapped students from school to work.

Most LEAs included work experience as a component of their service continuum. By utilizing JTPA resources, vocational rehabilitation services, and work study, more handicapped students were afforded work experience prior to graduating from high school.

During FY 86, North Carolina experienced a sharp decrease in the number of separate vocational programs offered for handicapped students. More students were served in the mainstream and received additional supplemental services as needed.

4. Description of Successful Activities That Served Handicapped

Programs and services were greatly enhanced during FY 86 by improving the quality and scope of supplemental services available for handicapped students. Each local education agency identified one individual in the school to work as the vocational support service coordinator.

The major duties of this individual were to develop and implement a vocational service delivery process which ensured that handicapped students received quality vocational services and additional supplemental services as needed in order to succeed in the regular vocational environment.

The vocational support service coordinator (assisted by para-professionals) worked with both students and teachers in an effort to provide the following services:

a. recruitment
b. assessment
c. coordination and implementation of each student's career plan

I. A. 4. Handicapped - Secondary (continued)

d. development and modification of vocational instructional materials
e. additional vocational related instruction
f. assistance to vocational teachers in planning individualized instruction
g. development and maintenance of a materials and resource center for teachers and students
h. job placement, cooperative, and work experience designed to enhance skill development
i. coordination of services among vocational education, special education, vocational rehabilitation, and JTPA
j. assistance to special educators in identifying transitional services through vocational education programs and services

The support service center was the nucleus for vocational services. This approach ensured that each student was properly identified, assessed, and services needed were identified and provided.

The following projects reflect the services and activities provided handicapped students in a variety of schools.

Bertie County - Estimated Expenditure (all fund sources) $30,540

Description of Services:

A special program was conducted for forty (40) co-educational TMH and EMH students. These 14-16 year old non-graded students participated in a yearlong, one period per day industrial arts course which was the only vocational program available in the school. The program was conducted in a laboratory equipped especially for the handicapped students. The curriculum was modified to provide numerous hands-on woodworking projects which enabled students to experience achievement and promoted satisfaction with accomplishments. A limited career information component was also provided in the instructional program. This was a coordinated effort which included input from the school counselor and exceptional children's personnel.

Plans for FY 87 include provision of an aide and expansion of the assessment and career information components of the program.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

No vocational education instruction would have been provided for these handicapped students had the funds not been available. Students had a chance to use equipment available only in this facility and experienced personal satisfaction through individualized projects. This effort can serve as a basis upon which to develop a transitional services program for students as they move through the educational system.

I. A. 4. Handicapped - Secondary (continued)

Kinston City Schools - Estimated Expenditures (all fund sources) $30,000

Description of Services:

This target group of students received diagnostic and assessment services to identify interest and aptitudes. A locally designed curriculum tailored to their individual needs helped the students to develop the skills necessary to obtain and maintain a job. A coordinator provided guidance counseling services on a daily basis. Evaluations completed by both the employer and coordinator provided individual feedback regarding student performance and served as a basis for further curriculum planning and modification.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

All students participated in the cooperative work experience training and maintained their employment throughout the year. Seniors in this program found permanent employment.

Nash County - Estimated Expenditures (all fund sources) $25,026.24

A special support service effort was designed to assist thirty identified handicapped students at Northern Nash Senior High School. The program entitled "Comprehensive Occupational Readiness Experience" had a strong work study component. A variety of assessment instruments were used to determine each student's capacity to master competencies in the regular vocational education program (see Attachment II). In addition to assessment services, supplemental services provided to handicapped students in the CORE program were:

Develop and coordinate the implementation of handicapped students' career plans and/or IEPs

Provide additional vocationally related instruction that is essential to the successful participation of students in regular vocational programs

Develop and/or modify vocational instructional materials

Assist vocational teachers in the modification of tools, equipment, facilities, or learning environment

Assist vocational teachers in planning individualized instruction techniques to meet the learning styles of handicapped students

Serve as liaison among vocational education, special education, JTPA services, and community agencies

I. A. 4. Handicapped - Secondary (continued)

Develop and maintain a materials/equipment resource center for handicapped students and regular vocational teachers

Provide job placement services designed to facilitate the transition from school to work

Provide co-op strategies and work experience designed to enhance skill development in a regular vocational program where these strategies are not utilized

Provide counseling and career development activities

Develop and implement a vocational service delivery process that will ensure that handicapped students are provided equal access to the full range of vocational programs available to their non-handicapped peers

As a support service these students were supervised closely during their work rotation period (work study). Students' work habits, job skills, and development of job survival skills were stressed. Students needing assistance with transportation were given assistance. They were taught to pass the N.C. Driver's License Exam, how to use public transportation, or transportation was provided for those who were unable to meet services in other ways.

ASSESSMENT

ACADEMIC SKILLS
- Peabody Individual Achievement Test (PIAT)
- Wide Range Achievement Test (WRAT)

INTELLIGENCE
- Wechsler Intelligence Scale for Children-Revised (WISC-R)

INTEREST
- Self-Direct Search
- Becker Reading-Free Vocational Interest Inventory: MF

APTITUDE
- Differential Aptitude Tests (DAT)
- Minnesota Paper Form Board Test

DEXTERITY
- Purdue Pegboard
- Minnesota Rate of Manipulation Test
- Strombery Dexterity Test

BASIC SKILLS ASSESSMENT
- Time Telling Test
- Telephone Skills

Wells Concrete Directions Test
Making Change Test
Oral Directions Test
Street Survival Skills Questionnaire (SSSQ)

WORK SAMPLES
Bennett Hand Tool Dexterity Test

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

acquisition of job skills
development of appropriate work habits
limited, but practical, on-the-job experience
refinement of job readiness concepts (e.g. decision making, responsibility, planning, budgeting, coping skills, etc.)

Moore County Schools - Estimated Expenditures (all fund sources)
$20,000

Description of Services:

The handicapped resources program provides services in assessment, remedial communication, and computation instruction and employability skills instruction related to the student's regular vocational course. Individual career development plans are developed based upon the results of assessment instruments. The vocational assessment instruments adopted for use are the Talent Assessment Program (aptitude), Program Assessing Youth Employment Skills (attitude and interest), and Learning Styles Inventory (learning styles). Vocational support services teachers are provided change books, grade location, etc., to assist them in locating students and providing services. Students are served on a need basis and attend the support services lab during their study hall, vocational class time, or other elective class. The support services teacher serves on the school based committee and is involved in placement of students. The vocational teachers and support services teachers work cooperatively in meeting the needs of students. Students are provided guidance services from the guidance department plus the support service instruction. The implementation of the career development plan and the resulting success including job placements, graduation from high school, and student follow-up are used in evaluating the program.

Davidson County

Description of Services:

Handicapped funds are used at the Davidson County Children's Center which serves TMH children from Davidson County, Lexington, and Thomasville. The program consists of woodworking skills, a two hour block with 14 students enrolled. The program at the

I. A. 4. (continued)

Children's Center is funded with state months of employment and handicapped funds. Handicapped funds are used for salaries of two aides. The program includes industrial, environmental, and service labs for junior high school students. The students attend classes from 9 a.m. until 2 p.m. with four hours of instruction in vocational education.

A special summer program is also provided for the TMH students at the Davidson County Children's Center. This program is designed to give reinforcement and continuity for these students in order that they do not regress before the following school year. All salaries for personnel, travel for students, and meals are funded through JTPA resources. Handicapped vocational funds are used only for the purchase of materials and equipment in a cooperative agreement with JTPA resources. The program operates for six weeks during the summer, ending on August 8. The hours of operation are five days per week from 9 a.m. until 2 p.m. Twenty-two students are served.

Improvement, Expansion, and/or Innovation:

The focus of the vocational handicapped program for trainable students has always been on assisting each student to achieve his/her maximum potential. Handicapped funds are used to employ aides who assist the teacher in developing a realistic work environment. Most all of the activities are set up on an assembly line basis. This process allows the TMH students to fully understand the task each one performs. The regular prevocational curriculum has been adapted to fit the TMH student's needs and abilities. All the activities in the environmental, industrial, and service labs are adapted to "hands-on" concrete learning activities for these students. These students have access to a large greenhouse which they operate and from which they sell plants and hanging baskets. The students are taught how to prune fruit trees in their small orchard and gardening skills during their summer program. In the industrial lab the students work on an assembly line and produce wood products. These are sold at the Farmer's Market and at various civic clubs. The students learn the techniques of sanding and finishing which can mean a job later in the furniture industry, the top employer in Davidson County.

The TMH program works very closely with vocational rehabilitation and the Sheltered Workshop. Vocational assessment is provided through VR. While several students do eventually go to the Sheltered Workshop, they have been extremely fortunate to have students going to work in local industries. The teacher involved in this program takes great pride in assisting these students to become independent, productive citizens.

I. A. 4. (continued)

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

The vocational program for these students has had an extremely positive influence on the total program for the TMH students. These students look forward to working in the vocational program. They are anxious to participate in the "hands-on" activities. Perhaps the greatest impact has been in the area of job placement. Last year three of the students who graduated from the program were able to find employment in the furniture industry. This has shown parents and other people that there are many more opportunities open to these students than was once thought possible.

Ashe County - Estimated Expenditure (all fund sources) $10,000

Description of Services:

Ashe County has established a program for trainable mentally handicapped students at the Ashe County Career Center. This program is predominately funded from exceptional children's funds, but a vocational component has been supported from handicapped funds provided under vocational education. Students move from elementary school level to the Career Center at age 13 and remain in the program until placed with ADAP, vocational rehabilitation, or sheltered workshops.

Within the program at the Career Center, the vocational program consists of individual and group shop work, survival skills training, sewing, and cooking. The primary provider of the vocational component is an aide employed from handicapped funds who coordinates laboratory/shop activities between the vocational teachers at the Career Center and the exceptional children's teacher. This aide works with the vocational teachers to develop appropriate activities for the students and supervises the activities of these students in the laboratory/shop. Students follow a regular schedule of activities in the vocational classroom which is then followed up by job placement after completion of Career Center activities.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Students who otherwise would be provided little or no vocatioanl training have an opportunity to experience activities which they can translate into work once they leave the center. This requires careful coordination with exceptional children's personnel, vocational rehabilitation, etc., but results in students having a greater chance to achieve a degree of independence they otherwise would never have attained.

I. A. 4. (continued)

Yancey County - Estimated Expenditures (all fund sources) $17,633

Description of Services:

One aide was employed to provide supportive services to targeted handicapped students. Exceptional student records, including psychological evaluations, were used to determine area(s) of need. The classroom teacher, the resource teacher, and the aide then developed personal education plans for each student. The aide provided supportive services in the identified areas such as reading, math, classroom activities, or projects. Counseling services were available as needed. Additional assessment materials such as the TAP program were also purchased and administered to identified students.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

We feel that these funds provide a very necessary service to handicapped students. Since many handicapped students feel insecure, the assistance provided by an experienced aide reduces tensions and increases the probability of these students being successful.

Gaston County - Estimated Expenditures (all fund sources) $75,000

Description of Services:

General Statement:

This program is a specialized program for identified trainable mentally handicapped students located at the Webb Street School. The entire school is for the trainable mentally handicapped.

The programs are operated during the regular school year with the instructors teaching four or five sections daily, one hour each in length. Aides assist these teachers with activities in the classroom. With this type of student, an aide is essential in the classroom setting to allow the individual attention needed to strengthen the learning process.

Student Assessment:

Students are assessed and identified as trainable mentally handicapped. Several different assessment instruments are utilized to addresss situations where multiple handicaps might apply. Results of these tests are used to determine each student's needs and individualized education plan.

Supplement Services:

Each teacher is assisted by an aide to allow greater individual attention and to be supportive of the learning process.

I. A. 4. (continued)

Guidance and Counseling:

Guidance and counseling and career development activities are provided primarily by the Division of Exceptional Children. Included in this service are transitional and placement activities. Many of these students are placed at Gaston skills sheltered workshops and others are placed directly in the labor market, mostly in the housekeeping industry.

Evaluation Process:

The talent assessment program for the profoundly handicapped is used to administer the pre and post-evaluation. Progress is monitored through the normal follow-up process. Students are continually evaluated periodically through observation, teacher-made tests, and professionally prepared evaluation instruments.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

The support services provided by this fund source would not be available to render the necessary help needed to allow individual attention to this target population.

I. B. Disadvantaged - (Excluding LEP) - Secondary Level

1. Number of Disadvantaged Individuals Receiving Additional Services in Mainstream Programs. (See Table 1)

2. Number of Disadvantaged Individuals Served in Separate Programs. (See Table 1)

3. Description of Successful Activities that Served Disadvantaged.

The primary objective during FY 86 was to provide quality vocational training for disadvantaged students in the regular vocational environment. To accomplish this goal, local education agencies established and implemented a vocational service delivery plan which included outreach activities, vocational assessment, supplemental services, career guidance and counseling, and job placement and follow-up. The following is a description of these activities:

a. Outreach

"At risk" students were identified at the 7th and 8th grade level. Individual and/or group counseling sessions were provided to inform students of vocational program offerings and the continuum of services available to them. During the spring of 1986, parents were informed of vocational options available to students. A vocational support service coordinator (SSC) worked to ensure that all students identified received career counseling designed to plan appropriate vocational placement.

b. Assessment

Students enrolled in vocational programs were given an assessment to determine their interests, abilities, and special needs. This assessment analyzed students' abilities and needs in relationship to available vocational training at the secondary level and the labor demands of the community.

Upon completion of the assessment process, the vocational support coordinator and vocational teacher cooperatively developed a career development plan for each student. This plan outlined the students' strengths and weaknesses, supplemental services needed, and method by which needed services would be provided.

c. Supplemental Services

Local education agencies provided a broad range of supplemental services designed to help students achieve success in regular centers or enhanced the quality of services provided in existing centers.

Students were referred to the SSC by the vocational teacher to receive one-on-one remedial or small group instruction as needed, counseling, or for additional time on vocational tasks. The support service center served as a bank of instructional materials and supplemental strategies from which disadvantaged students and their vocational teachers could draw assistance for skill training.

Instruction provided through the center varied according to student needs and learning styles. However, major emphasis was placed on basic skills remediation related to vocational tasks, technical skills, remediation, and counseling. The center personnel also assisted in planning instruction, modifying curriculum, and made recommendations for facilities and equipment modifications when appropriate.

d. The following projects reflect the services and activities provided disadvantaged students in a variety of schools

Pasquotank County - Estimated Expenditures
(all fund sources) $47,745

Funds from the federal allocation for services to disadvantaged youth have been used to continue and expand a supportive services program established for identified students at Northeastern High School in Elizabeth City. A separate, well-equipped resource center, established through previous special funding, was used by the resource teacher. Additional supplies, materials, and equipment were purchased through FY 86 allocation to update and expand the available resources for students. Identified disadvantaged students were referred by the classroom instructor to the support laboratory for special one-on-one remediation in basic and technical skills. The resource teacher also provided on-site supplemental assistance to identified students in the specific vocational education program area laboratories. Both types of support were initiated by the classroom teacher who had identified student needs and who worked with the resource teacher on specific competencies/ skills to be addressed with individual students.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

These funds have enabled the LEA to provide the extra assistance needed to help identified disadvantaged students having difficulties. Local data documents achievements were realized and the decision was made to continue offering this service in view of the positive impact upon students served.

I. B. Disadvantaged - Secondary (continued)

Duplin County - Estimated Expenditures (all fund sources)
$84,412.84

Description of Services:

Students enrolled in regular vocational classes who are identified as economically or academically disadvantaged were served by support personnel in addition to the instruction provided by the regular vocational teachers. These students received remedial communications and computational skills, vocational counseling services, and job placement support in an effort to help them remain in school and achieve success with their vocational courses. Support personnel worked with regular vocational teachers in identifying and meeting the remedial needs of the students and worked with identified students on an individual or small group basis. Each disadvantaged student enrolled in vocational education programs received an assessment of interests, abilities, and special needs; remedial assistance; guidance/counseling, and career development activities; and counseling services designed to facilitate the transition from school to post-school employment and career opportunities. Evaluation of this program revealed high success. Evaluation procedures included performance proficiency testing, staff observation, pre/post-testing, and staff-student conferences.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Disadvantaged funds provided the salary for one full-time support services person who worked in two of the four school districts in the county system. Funds also provided vocational assessment equipment and materials, career development materials, and remedial materials. A work study program was also provided for students who needed the financial assistance to allow them to remain in school. Almost 100% of the students served through these funds remained in school and displayed steady progress in their vocational classes.

Halifax County - Estimated Expenditures (all fund sources)
$35,000

Description of Services:

They were able to purchase some needed equipment to be used by the disadvantaged students at Southeast Halifax High School. Eighty-three percent of the students in this school are economically disadvantaged and many of them need a large amount of individual instruction in order to succeed.

I. B. Disadvantaged - Secondary (continued)

With disadvantaged money, they were able to purchase the Ken Cook Series on Small Engines. This unit includes actual models of lawn mower engines, boat motors, and diesel engines. Each unit is self-contained with tools, projectors, tapes, and study carrels. Each student is able to progress at his or her own ability rate. This was an excellent addition to the vocational curriculum, as the students in these classes experienced success in their school work. This is a good introductory course for auto and diesel mechanics courses at the eleventh and twelfth grade level.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

There was a very definite impact on this target population. Students gained a better self-image of themselves. Class attendance improved and seldom was anyone absent. Students looked forward to this type of activity and attitudes toward self, school, and others improved.

Cumberland County - Estimated Expenditures (all fund sources) $15,000

Description of Services:

During the 1985-86 school year, the staff of the vocational department of the Cumberland County Schools have used Title II, Part A funds in combination with vocational research and development funds for a project to develop a microcomputer instructional management software system. The system will be field-tested in two JTPA in-school courses and a Home Interior Services course offered to students in secondary education. The project is made possible through the cooperative efforts of the staff of the local vocational and exceptional children's department, Job Training Service Center, and the Research and Development Unit of the State Department of Public Instruction.

The system is designed to measure and document student achievement of course competencies. It accomplishes this task by pre and post-testing students with the use of an automatic test scoring device which stores the results in individual student files. A vocational training plan can be computer printed, documenting competencies prescribed and mastered for each student. The system can generate a variety of reports on student achievement to be used by vocational educators when evaluating and enhancing a course of study.

The initial stages of the project have been completed and the field test will begin during the 1986-87 school year. It is felt by the project's staff that the system could become a valuable tool in improving vocational courses and documenting student achievement.

I. B. Disadvantaged - Secondary (continued)

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

This project offers a promising approach to developing a more standard method of determining and serving the target population's vocational training needs.

Burlington City Schools - Estimated Expenditures (all fund sources) $52,000

Description of Services:

Burlington City Schools established a vocational assessment process operated through an assessment center for students identified as disadvantaged. The process included:

(1) Identification and referral
(2) Screening
(3) Vocational assessment (interest, aptitude, work sample testing, etc.)
(4) Instructional planning (individualized career development plan)
(5) Remedial services/guidance and counseling
(6) Placement/follow-up

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

(1) Higher student interest in vocational programs
(2) Increased involvement of parents, center staff, and teachers/counselors
(3) Better instructional planning (data based) for students
(4) Instruction more relevant to student need
(5) Higher retention rate

Monroe City Schools - Estimated Expenditures (all fund sources) $27,000

Description of Services:

The purpose of this disadvantaged program is to serve identifiable students who are not succeeding in regular vocational programs.

The program will be operated in the Monroe High School facility.

The program will provide guidance and instruction necessary to meet the following basic objectives:

(1) To provide learning experiences that will enable disadvantaged students to meet with success in regular vocational education programs.

I. B. Disadvantaged - Secondary (continued)

(2) Achieve success in an adaptable educational setting.
(3) Through an assessment program, the instructor assists individuals in the making of informed and meaningful vocational career choices.
(4) Prepare individuals for enrollment in advanced technical education programs.
(5) Prepare individuals for gainful employment as semi-skilled or skilled workers or technicians or sub-professionals in recognized occupations and in new emerging occupations.
(6) To provide learning experiences that will enable disadvantaged students to gain knowledge and skills at a level of competency that will help them succeed in a regular vocational program. A goal would be that the students will succeed to the level that they can qualify to enter the labor market at an employment level equivalent to their interests, abilities, and aspirations.

Specific needs of the target group to be met include the following:

(1) Involvement in learning activities
(2) Opportunities to use all their senses for learning
(3) Successful experiences
(4) Work oriented skills and knowledge of good work habits
(5) Attitude enhancement

What is to be done and by whom:

Specialized equipment and materials will be used by students in the program.

These students will receive individualized instruction in order to help them achieve success in the vocational program. Instructional materials with occupational emphasis will be used in the program. These students are enrolled in vocational courses. A complete assessment will be made of each student identified.

How the program will operate throughout the year:

Participating students will be referred to this class. The program is called Vocational Support. Referrals are made by the teacher based on the assessment need. Specific skills needing improvement are identified by both the teacher of the vocational support class and the subject teacher.

A schedule will be determined that will allow students assigned to this program to simultaneously participate in activities of both the assigned class and the vocational support class. When assessment determines that recognized progress is made, the student returns to the regular class on a full-time basis. Follow-up of the student will be done by the support teacher.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Under present budget structure, these services could not have been provided without undue hardships.

I. B. Disadvantaged - Secondary (continued)

Burke County - Estimated Expenditures (all fund sources)
$21,000

Description of Services:

Burke County established a model vocational assessment program for disadvantaged students. They identified the following needs:

(1) Explaining the Carl Perkins Act to professionals,
(2) Explaining program implementation, and
(3) Explaining resources available.

All personnel involved with vocational education received a packet describing what vocational assessment is and the process to be used. Each packet was personally delivered by the vocational assessment specialist along with a verbal explanation. Each recipient was encouraged to review the material and ask questions. Two in-service training sessions were held to explain the role of the assessment specialist and to provide an in-depth look at the vocational assessment component. Burke County uses CASE, Reading-Free Vocational Interest Inventory, TAP, and Apticom. All participants were shown exactly what their students would be doing and why. A typical computerized assessment report was presented and explained. The scores were explained to teachers and then a discussion was conducted of how teachers could use those scores to help analyze student needs. Through this process teacher support for vocational assessment was acquired with very successful results in the assessment process.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

From January 1986 through the end of May 1986, 1502 students were identified as disadvantaged or potentially disadvantaged. Of these, 303 students were tested and counseled and all requirements of the Carl Perkins Act were met. All assessments were done by the vocational assessment specialist. This individual is a former vocational rehabilitation specialist who was already employed by the LEA and was shifted to vocational education. Identification lists, career development plans, test results, and other required portions of the vocational assessment process are all in place for these students. As a result more accurate and appropriate placement of these students was possible for the 1986-87 school year.

Haywood County - Estimated Expenditures (all fund sources)
$30,735

Description of Services:

The program is held during the regular school year. This program provides funds for resource teachers at both Pisgah and Tuscola Senior High Schools. The purpose of the program is to help disadvantaged students improve any vocational reading skill, vocational communication skill, or vocational technical skill

I. B. Disadvantaged - Secondary (continued)

that might be keeping the disadvantaged student from succeeding in their regular vocational classroom. The students are assigned to the resource lab from their regular vocational program until their problem has been corrected. They may also be assigned to the lab for a semester or yearlong if their problem requires extensive remediation. Before any service is rendered, the following identification process will be utilized:

(1) Identify the students
(2) Fill out a Career Development Plan
(3) Gather necessary academic information
(4) Assessment instruments re: vocational interest, vocational learning style (if a good one can be found), and vocational aptitude test will be administered and analyzed by the teacher, counselor, and industry education coordinator
(5) If support and counseling services are indicated, the Career Development Plan will be completed, signed, and used. After the initial testing period, most tests and inventories will be administered to disadvantaged students in the eighth (8th) grade. These funds also support the work study students (3).

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

The major impact of these funds on the population has been to bring students with low vocational math skills to a level in which they can succeed in their vocational subject. On completion of their program, they are able to work with fractions, percents, and read a ruler. Their reading ability is increased by a study of vocabulary related to their vocational program and other skills that need remediation in order to read their vocational textbooks and service manuals.

The computer is used as a tool to increase student interest in vocational reading and math.

These funds also provide funds for the work study program. This program provided students with the opportunity to gain experience in actual work situations, and prepares them for work after they complete high school.

4. Achievement in Serving the Disadvantaged

With the improvements in the quality of support service centers there was a drastic decline in the number of special separate programs for disadvantaged. This means that more disadvantaged students were able to access regular vocational programs and receive training with their non-disadvantaged peers.

Students were provided additional instruction and counseling as needed and as referred by the vocational teacher. Through the vocational support service coordinator, the LEAs established a process that ensured a successful vocational experience either in a classroom setting or on-the-job training.

I. B. Limited English Proficient (LEP) - Secondary Level

1. Number of LEP Individuals Receiving Additional Services in Mainstream Programs. (See Table 1)

2. Number of LEP Individuals Served in Separate Programs. (See Table 1)

3. Description of Successful Activities that Served LEP.

   Limited English proficient students that needed assistance in vocational programs were identified. Support personnel (teachers or paraprofessionals) were employed as needed to provide assessment, counseling, and tutorial services in their native language. In addition, funds were used to purchase supplemental materials and supplies designed to help students achieve success in vocational programs.

4. Achievements in Serving the LEP Students in Terms of Improved Access and Services Provided that Contribute to the Success in the Program.

   The use of support personnel has served to implement the identification and assessment process and make vocational programs more accessible to students with limited English proficiency. The identification of students' needs through the assessment process has resulted in the improvement of programs and services which more adequately help them achieve success in vocational education programs.

I. E. Students in Non-Traditional Programs (Sex Equity) - Secondary

1. Achievements and services provided to reduce sex bias and sex stereotyping.

Local education agencies were given an opportunity to apply for special grants to develop programs aimed at reducing sex bias, sex stereotyping, and increasing the enrollment of boys and girls in non-traditional vocational programs. Thirty-two special equity projects were funded and implemented.

The scope and design of each project varied according to each LEA's needs in one or more of the following areas:

1. Inservice activities
2. Guidance materials
3. Outreach materials
4. Non-traditional Career Day
5. Technology Exploratory Program
6. Sex Equity Model Program
7. Projects to assess local equity needs
8. Projects for teenage parents

The most successful of these were the Summer Technology Exploratory programs. These projects were designed to introduce males and females to non-traditional careers in the technology area. Students were provided hands-on exploratory experiences and visited high tech industry in the area to talk with non-traditional employees and observe different tasks they were required to perform. In addition, guest speakers employed in non-traditional occupations were invited to the classroom to talk with students about careers in the technology area. Each project included a strong counseling component which utilized sex fair guidance materials, equity resources, and research.

In addition to the special projects, the sex equity coordinator conducted three very successful workshops designed to increase the awareness level of vocational personnel of target equity issues and to assist LEAs in developing local equity programs to eliminate barriers to sex fair vocational education.

2. Cooperative efforts with private sector

Local education agencies collaborated with business and industry to plan non-traditional career day activities, non-traditional cooperative vocational education experiences, and in establishing a network of non-traditional workers in North Carolina.

I. E. Students in Non-Traditional Programs (Sex Equity) - Secondary

The following projects reflect the services and activities provided to promote and ensure sex equity in a variety of schools.

Clinton City Schools - Estimated Expenditures (all fund sources) $949.16

Description of Services:

The vocational guidance program at Clinton High School was limited in its ability to reduce or eliminate sex bias and stereotyping due to a lack of relevant and appropriate materials and resources. Therefore, the LEA applied for a $1000 Sex Equity mini-grant through the Carl D. Perkins Act of 1984. These funds were used to purchase books and filmstrips to be used as guidance resource materials. They were received in June 1986 and will be available for student use during the 1986-87 school year.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

These funds will enable the Clinton High School vocational guidance counselor to supplement and/or replace currently used materials that may not be purged of all sexist language and/or articles. Also, a more comprehensive program designed to eliminate sex bias and stereotyping will be possible with the additional materials.

Wake County Schools - Estimated Expenditures (all fund sources) $17,000

Description of Services:

"Nutrition for the Pregnant Teen" is an educational kit developed for the high school population that informs the student of the nutritional intake required to maintain the health of the "pregnant teen" and provide normal growth for the fetus. The kit contains a programmed computer software package which teaches individual nutrition requirements, meal planning, and diet analysis. The audio-visual materials include filmstrips, cassettes, and a work activity package on nutrition; a notebook, giving step-by-step instructions and activities both commercial and created, is part of the kit. Flyers, pamphlets, and other motivational materials have been added as supplements.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Females who become pregnant during their teen years are less likely to finish school, especialy if burdened with poor health or a child with poor health or birth defects. With the use of this kit, it is hoped that the target population (pregnant teens) will use this information to protect their own health, deliver a healthy baby with fewer complications, and stay in school where they can receive the necessary training for employability.

I. E. Students in Non-Traditional Programs (Sex Equity) - Secondary (continued)

Richmond County - Estimated Expenditures (all fund sources) $11,650

Description of Services:

The Teenage Parenting Program is designed to serve vocational education teen parents, male and female, who are potential dropouts because of emotional, social, economical, and educational factors. The ultimate goal is to assure that teenage parents involved in vocational education do in fact stay in school and graduate with a job entry level skill and enter the job market or further technical training. Non-traditional opportunities for employment are given special emphasis.

Student Assessment:

Eligible students were identified and interviewed to determine current status of student-parent/children, academics, finances, attitude/self-esteem; present needs, services needed, transportation, child care, tutoring, and alternative education.

Referrals were made by vocational education staff members and guidance staff.

Students who had not previously had the vocational assessment services were assessed and a tentative career plan was developed.

Supplemental Services:

All students were provided access to community agencies that have services available for their needs.

The coordinator:
(1) scheduled appointments
(2) made plans and arrangements with teachers concerning classwork
(3) counseled with students
(4) helped in locating jobs
(5) provided tutoring
(6) provided transportation

Provided access to:
Day Care, Social Services, Health Department, JTPA, School Guidance Counselors, Employment Security Commission, Richmond Technical College, Extended School Day Program

Guidance and Counseling Programs and Career Development Activities:

As soon as students were identified as eligible for this program, their school records were reviewed and an interview was held.

All students either had already, or through the project, completed the vocational assessment package of activities including 5 interest inventories, vocational aptitude assessment, and developed a tentative career plan. Every enrollee was provided special assistance through

field trips, video, current job information on high tech non-traditional career opportunities related to the individual's career interest. Plans were completed to pursue training or instruction. For most the initial efforts were directed at meeting critical present needs and pre-registering for the appropriate vocational course for 1986-87.

Transition:

Much of the time was spent counseling and providing guidance for re-entry into the classroom setting. Every student was involved in counseling sessions at least once a week.

Counseling sessions on parenting responsibility, child development, how to get a job, and non-traditional career options especially for women were held.

Vocational course performance was closely monitored. All seniors were scheduled for job interviews and enrollment in further training at the technical college.

All seniors entered the job market or technical training that were not confined to the home because of day care or transportation needs.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Evaluation:

Past attendance and academic records were reviewed and compared to 1985-86.

First semester performance in vocational skill courses were compared to second semester.

Teachers were conferenced in regards to the student's self-esteem and attitude.

Twelve students entered employment and six enrolled in a job training program at Richmond Technical College.

There was no previous data to compare with, but a more definitive evaluation system will be used for 1986-87. The general attitude in the community and schools was that it was a very effective program.

Greensboro City - Estimated Expenditures (all fund sources) $4,364

Description of Services:

This was a joint project between vocational education contact persons and science (K-6) contact persons. They brought in a nationally known consultant and provided a one-day workshop on several equity phases

as it pertained to science and vocations. The contact persons rated (evaluated) the day "excellent" and each followed up with in-service of their own at the home base school. The day really got at the many ways we all can be "bias."

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

A commitment was made by all who attended, and the office has been aware of several bits of literature that were distributed during the workshop and are being used in the classroom setting. They hope to do a follow-up next fall out of local dollars, and have several of the same participants give them feedback as to the year's success or lack of it. Without a doubt this session did reduce many biases in the teachers which in turn affected the target population.

Kings Mountain City Schools - Estimated Expenditures (all fund sources)
$6,244

Description of Services:

A special two-week summer program, Orientation to Technical Careers for Women, was developed which provided seven hours per day of specialized instruction and counseling for high school juniors and seniors. Students spent part of each day in a special Principles of Technology course which emphasized a hands-on, non-threatening learning environment. The other part of the day was spent in group counseling activities which examined the role of women in the work force, the need for women to learn a skill, and the advantages of choosing a technical career, assertiveness training, decision making, goal setting, and job seeking skills.

Students were tested, evaluated, and counseled about their vocational interests, aptitudes, and job possibilities. Students participated in field trips to local industries (Reliance and Combustion Engineering), to the N.C. State Nuclear Engineering Department, and to the Research Triangle Park (N.C. Microelectronics Center and IBM).

Students also heard from a panel of five women who are following non-traditional technical career paths. These women disclosed their own personal experiences and discussed ways that women can successfully pursue careers in male-dominated fields of work.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

One hundred percent of students feel they have increased their understanding of problems facing women in the job market and workplace, jobs available in technical fields, assertive behavior, and their own interests and abilities.

I. E. Students in Non-Traditional Programs (Sex Equity) - Secondary (continued)

Eighty-six percent feel they are more aware of the role of technology in the world today and in the future and know more about what they want to do in the future.

Seventy percent agree that they understand electrical systems better, know more about how math skills are used in technical occupations, know how to be interviewed successfully for a job and can now set meaningful goals for themselves.

Fifty percent of the students are not sure that they can write a good resume and cover letter.

Forty-one percent agree that they understand mechanical systems better now.

All of the students feel that the field trip to Raleigh and the Research Triangle Park and the panel of speakers in non-traditional occupations were very valuable experiences.

One student decided that she would pursue a technical career, one student decided that a technical career was not for her, and one student changed her fall schedule to include the Principles of Technology course.

Hickory City Schools - Estimated Expenditures (all fund sources)
$20,000

Description of Services:

Hickory City Schools recognized that adolescent parenthood interrupts and often forestalls the completion of education and makes finding employment difficult. Therefore, the LEA sought funding for a program to expand school hours to accommodate the needs of young parents ages 14-21. The program was designed to identify, locate, and assess the needs of young parents and encourage them to continue their secondary program.

The project employed a counselor/coordinator and four part-time teachers. The coordinator recruited students, assessed student needs, developed individual education plans for each student, and provided counseling, reporting, job placement, and follow-up. Counseling services included administering a career survey, developing a career plan, appraising student needs and abilities, and providing career information. Teachers provided information to allow students to become knowledgeable in vocational and basic skills.

Students were allowed to attend on a needs basis in a flexible schedule that met their home and work needs. Child care services were provided by community volunteers.

I. E. Students in Non-Traditional Programs (Sex Equity) - Secondary (continued)

Statistics on Young Parent Program (2/3/86-6/30/86)

Number of students served - 27 total
- Day school 9
- Extended day 18

Number who dropped out of program - 8
- Day school 1
- Extended day 7

Number of students enrolled in other schools prior to attending Young Parent Program - 10
- Day school 2
- Extended day 8

Number of students who were school drop-outs prior to attending Young Parent Program - 10
- Day school 2
- Extended day 8

Number of students already enrolled in alternate school prior to attending program - 7
- Day school 5
- Extended day 2

Number of students who became employed after participating in program - 5
- Day school 0
- Extended day 5

(one student already employed prior to participation in program)

Number of students planning to return to their previous school - 3
- Day school 0
- Extended day 3

Number of students to graduate from high school from program this academic year - 1
- Day school 0
- Extended day 1

Number pregnant students served - 11
- Day school 4
- Extended day 7

Number students who already had child served - 16
- Day school 5
- Extended day 11

Ages of students	15 yrs.	16 yrs.	17 yrs.	18-21 yrs.
Day school	4	3	2	0
Extended day	4	2	4	8

I. E. Students in Non-Traditional Programs (Sex Equity) - Secondary (continued)

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

The program has served twenty-seven different students. Of these, eighteen enrolled in evening classes, seven came from other area schools, and three of these plan to return to their home schools in the fall. Some of the students had already attended the alternate school in the LEA and continued in that program with the addition of the parenting class portion of the program. One student has graduated through the program and now plans to go to college. Through the program students have been allowed to support their family and continue their education in a manner most appropriate for their needs.

Macon County - Estimated Expenditures (all fund sources) $1,420

Description of Services:

Three sex equity mini-grants were used in Macon County in the Franklin area schools. Funds from a $750 grant were used to design and print a brochure promoting students into non-traditional program areas. All vocational teachers had an opportunity to decide on content which included faculty names, course offerings, teacher and student quotes, pictures of students in non-traditional settings, and statistical information.

A $300 mini-grant was used for a non-traditional career day at Macon Middle School. Teacher and student representatives and community representatives in non-traditional careers talked with the 8th graders as they toured the vocational displays. Using the slogan "you can be anything you want to be," the 8th graders were provided orientation before the career day to stimulate interest in careers they might not have thought of.

A $370 in-service mini-grant was used to fund a workshop for the grants writer and the vocational guidance counselor. This in-service prompted the writing of the other two grants.

Formal and informal evaluations were conducted. An exit poll was conducted at the middle school. Students, teachers, and community representatives had high praise for the program and felt it should become an annual event. The brochure was in response to a survey conducted at FHS. Students felt they needed more information on vocational programs and have responded in a positive manner.

I. E. Students in Non-Traditional Programs (Sex Equity) - Secondary (continued)

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Students were made aware of vocational programs available to them and interest has been stimulated in non-traditional careers. They have been encouraged to investigate any field they might be interested in. Parents, through the publicity of the news media of the events, have been made aware of the vocational programs available in the Franklin area. It has afforded our students an opportunity to expand their career choice and has made teachers more aware of the flexibility of job opportunities.

II. Program Improvement Accomplishments - Secondary

Results and Accomplishments of Expending
Title II - Part B Federal Funds
VOCATIONAL EDUCATION PROGRAM IMPROVEMENT,
INNOVATION, AND EXPANSION

The following information reflects the state's programs, services, and activities designed to provide participants education/training with federal funds under Title II, Part B and matching state/local funds where required or optionally provided.

A. New Courses (See Table 2)
B. Expanded Courses (See Table 2)

Courses By Category*

Table 2

Program Area		1. + 2. = 3. Total + 4. = 5. New Courses	Expanded Courses	Improved Courses	Discontinued Courses	Total
AGRIC.		58 (9%)	20 (34%)	78 (11%)	136 (16%)	214 (14%)
B.O.E.		106 (18%)	8 (13%)	114 (17%)	90 (11%)	204 (13%)
H.O.		16 (2%)		16 (2%)	10 (1%)	26 (2%)
H. EC.	cons	90 (15%)		90 (13%)	75 (9%)	165 (11%)
	occ	45 (7%)	2 (3%)	47 (7%)	10 (1%)	57 (4%)
I. A.		77 (12%)		77 (11%)	65 (8%)	142 (9%)
M. E.		52 (8%)		52 (8%)	43 (9%)	95 (6%)
T & I		34 (5%)	30 (50%)	64 (9%)	273 (32%)	337 (22%)
PRE-VOC		145 (24%)		145 (22%)	146 (17%)	291 (19%)
TOTAL		623 (41%)	60 (4%)	683 (45%)	848 (55%)	1531 (100%)

*This information is taken from the North Carolina Public School Statistical Profile: Comparison of 1984-85 with 1985-86.

Columns 1 and 2 were added to get column 3. Columns 3 and 4 were added to get column 5.

NEW-means new to the LEA or a school within an LEA
EXPANDED-means added a level in a sequence or added a coop component

II. B. Expanded Courses - Secondary (continued)

1. Program Improvement and Trends Reflected in Part II, Local Plans and Program Area Data

The following uses of federal, state, and local resources are evidenced by information provided by LEAs through "Part II, Vocational Improvement Plan, FY 86, Local Vocational Plan and Annual Application" and "Abstract For Title II-B: Program Improvement, 1985-86."

Administration

Activities involving local advisory councils were increased with many LEAs revitalizing these councils to be more responsive to populations which they serve. Respondents to both student and employer follow-up surveys were increased. LEAs increased their public awareness activities. There were more joint planning efforts on the local level between public secondary schools and postsecondary schools.

Curriculum/Instruction

Equipment: Most LEAs reported updating equipment and identified most frequently computers, word processors, micro-processors, electronic testers, electronic kits, modern automotive technology equipment, microwave ovens, etc.

Instructional Materials/Supplies: LEAs were able to purchase some much needed modern, up-to-date curriculum guides, instructional packages, audio-visuals, supplemental textbooks, manuals, and periodicals.

Shops/Labs Safety

Activities in the area of safety included workshops on safety for teachers, installing portable dust collection systems, and painting safety zones in shops/labs.

Vocational Student Organizations

A number of LEAs reported increased efforts to support student participation in vocational student organization activities. Many new local VSO chapters were organized.

Redirecting Programs

More vocational offerings were responsive to student needs and labor market data. LEAs offered more advanced and technical courses in the areas of business education and industrial arts. Many trade and industrial education courses were deleted because of lack of student enrollment and changing labor market needs.

II. B. Program Improvement and Trends Reflected in Part II, Local Plans and Program Area Data (continued)

Special Populations

All LEAs used resources to provide various supportive services to students and most used funds to purchase assessment materials. Disadvantaged and handicapped resources were primarily spent on supportive services with emphases on initiating, expanding, and improving assessment services. Isolated special programs were established; however, the trend is clearly to supportive services. Also, federal resources were provided for guidance/counseling and consumer/homemaking programs throughout the state.

Personnel

Funds supported state, regional, and local personnel development activities designed to improve the competencies of LEA personnel in delivering quality vocational programming.

Needs

Vocational Improvement Plans strongly suggest that improvements still need to be made in updating equipment, offering additional in-service opportunities, and updating instructional materials. Increased attention toward deleting some programs and expanding into new areas were evident.

Workshops in computer uses, technology education, safety, and serving special populations were most cited as needing improvement. Data based management also received attention.

Special Projects

DownEast Instructional Telecommunications Network:

See II. G. 2. a.

NC Real Enterprises: This project is designed to help students in a school examine its local area and determine businesses that need to exist. The students then select one need and create a school-based, profit-making enterprise. The focus is upon helping students develop economic concepts and entrepreneural skills. An important purpose of this project is to prevent students from dropping out of school.

II. B. (continued)

Across The Board Types of Activities

Computer assisted instruction/learning to emphasize the importance of computers

Providing programs to emphasize non-traditional occupations

Short-term instruction to meet one or two specific objectives

More emphasis on competency instruction

Articulation of vocational programs with math, science, and communication skills

Assisting students in developing realistic career plans

Preparing students with entry-level services

Developing placement and follow-up services

Moving from traditional low-interest vocational courses to technology courses

Articulating courses and programs with post-secondary institutions

Marketing vocational education programs, services, and activities

Increasing school, business, industry, and community agency, JTPA collaboration/linkage

Providing supportive services for students needing supplemental help

Utilizing more formalized decision-making procedures

Trends

Shifting T & I teachers to I. A. teachers or retraining T & I teachers for other program areas

Growth in the amount of vocational assessment not only for disadvantaged/handicapped but also for "regular" students

Appears that more LEAs are moving toward comprehensive overhaul of a lab rather than buying one piece of equipment at a time and never having a totally modern lab

Teachers are attending more technical updates with business/industry

Teachers attended industry sponsored training sessions in auto mechanics, drafting, food services, marketing, and word processing

II. B. (continued)

2. How Local Advisory Councils Contribute to Improving Programs

To receive state and federal funds for vocational education programs and services, the local superintendent of public schools and the chairperson of the local board of education must sign a number of statements of assurances contained in the annual application. Among these assurances is one which states: "The annual plan was developed with the advice of a local advisory council. This plan is consistent with criteria set forth by legislation and/or State Board policy."

The local annual application for state/federal funding from eligible recipients indicates advisory council members by clientele group served, race, and sex.

Based on a 20% random sample of LEA secondary vocational education annual applications for state/federal funding submitted for FY 86, following is the composition of local advisory councils by clientele group represented.

For FY 86 there were 141 local education agencies with 3918 members on vocational education advisory councils.

Clientele groups represented:

Agricultural	5.92%
Business	16.13
ESC, JTPA, other employment	20.72
Health	3.21
Home Economics	5.05
Industry	10.71
Labor	6.96
Marketing	3.87
Office	4.36
Technical	4.08
Trade	5.64
Other (parents, students, educators)	13.35
	100.00%

Composition by race and sex:

White males	48.31%
White females	22.20
Black males	16.75
Black females	11.79
American Indian males	.66
American Indian females	.12
Other males	.17
Other females	.00
	100.00%

II. B. (continued)

3. How Vocational Education Standards Contribute to Improving Programs

The 1985 General Assembly of North Carolina recognized the importance of quality vocational programs in the state by enacting six standards for the approval of vocational education programs as reflected in annual applications for state/federal aid beginning with plans and applications for the 1986-87 school year.

Several of these standards deal with limited economic resources and thus target student demand and employment opportunities. One standard provides for the cooperative method of instruction to be more closely tied to actual classroom instruction while another standard addresses programs being more responsive to technological advances, changing characteristics of the work force, and the academic, technical, and attitudinal development of students.

II. C. Improved Career Guidance - Secondary

1. Accomplishments this year in the State's priorities (indicated in the State Plan) for program improvement, innovation, and expansions.

   A statewide system of vocational guidance, counseling, and placement services were expanded in the areas of planning, implementation, and evaluation of the program. Approximately 90% of the vocational counselors developed functional yearly programs of work that were either submitted or shared with appropriate local education agency administrative personnel.

   Conducted four bi-regional workshops, which encompassed each of the eight educational regions, to assist 85 new persons in developing and implementing effective yearly programs of work.

   Upgraded the membership of the State Advisory Committee for vocational development. This 22 member committee consists of representatives from business, industry, labor, higher education, administration, and constituent groups. It functions to provide input from the community, strengthens linkages with secondary vocational programs, and recommendations for evaluating and updating the vocational guidance and counseling program.

   Conducted on-site program reviews for 20% of the local education agencies in the state. This process serves as one determinant to assess the needed implementation strategies for programmatic improvement.

   Coordinated the Vocational Honors Society in twelve local education agencies which involved more than 400 students. This program serves as an incentive to promote scholarship, citizenship, pride, and enthusiasm in students enrolled in vocational education programs.

   Updated the guidance based North Carolina Careers microcomputer program and expanded software program usage to include Military Careers. Schools across the state are using 301 sets of the North Carolina Careers and 51 sets of Military Careers.

2. Methods and procedures used to implement program improvement activities according to the identified priorities.

   Provided a four day vocational development section at the Annual Vocational Education Summer Workshop. Seventeen hundred counselors, vocational counselors, and job placement coordinators were invited. Participants updated their varied program components, e.g. using occupational data and information, developing four-year personalized education plans, analyzing job trends relative to career planning, and appraisal of "the state-of-the-arts" as an instructional tool, and to future job needs.

II. C. 2. (continued)

Developed, with input from vocational development coordinators and business/industry representatives, the Industry Education Coordinator's Implementation Guide and the Industry Education Coordinator's Resource Guide to foster better delivery of student services through a coordinated effort with business, industry, labor, military, and the school community.

Conducted a three day up-grading staff development workshop involving 60 participants that represented each of the eight educational regions, using the "Train the Trainer" approach. The persons served as lead persons in the various regions to inservice fellow colleagues.

Sponsored three staff development activities in each of the eight regions through the statewide networking Regional Leadership Council system. The workshops involved 532 counselors/job placement coordinators and 142 representatives from business, industry, labor, and the armed services in an effort to improve program effectiveness, particularly in the areas of job training and permanent employment.

Upgraded the guidelines for certifying persons who deliver vocational development services to students enrolled in North Carolina's vocational education programs.

3. Descriptions of programs/services which are an example of the impact of vocational education funds on youth are as follows:

The four-year personalized education plan is a cooperative, tentative, charting process; after an assessment of individual interest, achievement, and/or aptitude has been made of needed courses in order to accomplish the current career goal objective. Each student enrolled in vocational education must have a four-year personalized education plan. This plan lists by grade the courses and sometimes the activities the student will need through the completion of high school in order to complete his/her career goal. It also lists career options after high school. The plan is made after an assessment of each student's interest, achievement, and perhaps aptitude levels have been determined. The listing of courses is made in pencil, so that course changes can be made as the student's interest and needs change. These plans are closely monitored to keep them up-dated. The advantage of this process is students proceed through school with definitive career goals and exit from the school on a career course; to enter the labor market with marketable skills or to advance their education in an appropriate postseconday institution.

II. C. 3. (continued)

The internship/showing program is one that is increasing in number. This program enables students to work and/or observe, over a given period of time, their high interest occupation. The student is able to ascertain if the duties expected are those desired and the environment is conducive to and compatible with their expectations. If not, the student is able to explore other occupations in which he/she finds satisfaction. The program provides students an on-site observation of the world-of-work in a high interest occupation in which these students can make valid decisions pertaining to their future.

II. D. Personnel Development - Secondary

A scholarship program for individuals desiring degree certification in vocational education attained fruition. Information on the Vocational Education Prospective Teacher Scholarship was mailed to over 200 different organizations including local school systems, postsecondary institutions, and institutions of higher education. Sixty-three (63) applications were received and a review team made scholarship recipient recommendations. The Division of Vocational Education made the selection of 20 recipients.

Vocational education certification guidelines were revised to include part-time personnel and provisionally certified personnel. This activity is still receiving input from various groups and is being revised to be in concert with other certification policies and procedures.

The Division of Vocational Education Management Plan included specific goals and objectives for the training of employed vocational personnel including teachers, counselors, teacher educators, and state and local administrators. This includes priorities in new and related fields, equity, and special populations. The plan emphasized personnel development activities. Over 75 different training activities involved more than 5,000 vocational education participants as a result of the plan. Priority was given to new and related fields, equity, and special populations. The 5000 + participants included local vocational instructional and support personnel, vocational teacher educators, and vocational administrators at the local and state level. The training activities offered were based on a needs assessment which included prior training activities, vocational leadership advice, participant identified needs, and a program review and improvement process.

The Division of Vocational Education gathered data on the quality and quantity of vocational education personnel. This data was shared with institutions of higher education for use in planning for vocational teacher education that will improve programs.

II. D. Personnel Development (continued)

The Division of Vocational Education gathered data on the supply and demand of vocational education personnel in cooperation with a statewide effort coordinated by the Department of Public Instruction. The data was shared with university personnel, and state and local vocational administrators. Specific recommendations were made by these groups on what should be done as a follow-up to this session.

II. E. Curriculum Development - Secondary

The following curriculum thrusts were conducted to help local programs improve their offerings, by updating course content and assessment measures:

1. Development of two test-item banks
2. Development of three first drafts of curriculum guides and handbooks
3. Reprinting five test-item banks and guides
4. Revision of five curriculum guides
5. Development of seven competency listings
6. Development of ten curriculum guides
7. Adoption of six curriculum guides
8. Development of three instructional modules

These materials were developed in conjunction with teachers and business/industry personnel. Priorities for curriculum development were based upon the number of teachers and students to be served, last revision dates, new thrusts, and availability of materials from other sources. As a result of their development, teachers have access to current information for planning, enhancing, and managing the teaching process.

II. F. Equipment

Each program area identified the minimum equipment necessary for each vocational course. The Equipment Standards were shared with each local school system. Based upon business/industry and teacher input, the Equipment Standards will be finalized in June, 1987. The standards are to help local school systems in determining their deficiencies and identifying funds needed to have state-of-the-art equipment.

II. G. Research - Secondary

1. Research, development, and exemplary activities funded through the Carl D. Perkins Act by the Division of Vocational Education, North Carolina Department of Public Instruction, during Program Year 1985-86 operationalized the Carl Perkins Act through projects focused on program expansion, innovations, and assessment and/or demonstration of new methods for delivering programs, training, and technical services. The changing technologies and work environments are creating obsolescence in curriculum content and instructional methodologies, teacher preparation and training, delivery of services, and access to the latest state-of-the-art materials, software, and hardware by local school systems, especially in sparsely populated areas for students from both regular and special needs populations. Projects were designed and initiated in an attempt to provide strategies for coping with each of these factors.

Specific research and development projects in program year 1985 were:

a. DownEast Instructional Telecommunications Network (DITN) - Rural Education Institute, Greenville, North Carolina.
b. Joint North Carolina Vocational Education - U.S. Army Electronics Project.
c. Interactive VideoDisc Project - Hyde County Schools.
d. Identification and Evaluation of Alternative Teacher Education Delivery Strategies - East Carolina University.
e. Demonstration Model for Documenting Competency Achievement of Special Needs Students in Association with JTPA - Cumberland County Schools.
f. Field Test of a Computerized Model for Assessing and Documenting Student Competency Achievement - Richmond County Schools.
g. Correlation of Selected Social Studies Competencies with Competencies in Marketing and Business Education Courses - North Carolina State University.
h. Determination of the Impact of Selected Innovations on Vocational Education - Burlington City Schools.
i. Evaluation and Follow-Up of Consumer and Homemaking Graduates - University of North Carolina at Greensboro.

2. Methods and procedures used to implement program improvement activities according to the identified priorities are specified in each of the following project descriptions:

a. DownEast Instructional Telecommunications Network (DITN) - Rural Education Institute, Greenville, North Carolina.

The Division of Vocational Education and the Rural Education Institute at East Carolina University, Greenville, NC have designed and are implementing a major program for providing rural students access to an innovative curriculum which integrates academic and vocational education. Five small high schools - Aurora, Bath, Belhaven, Mattamuskeet, and Ocracoke in Hyde and Beaufort counties are the model sites.

Highlights of the model include: (1) providing students with a rigorous, new curriculum - Principles of Technology - integrated with mathematics and communication skills; (2) developing vocational activities and strategies that assist students in meeting competencies for present and emerging technical careers; (3) meeting student graduation requirements for vocational and academic courses; (4) utilizing technology in the delivery of the program by linking the sites with interactive audio, video, and computer capabilities; (5) providing access to state-of-the art science, vocational and telecommunications equipment and techniques through a mobile unit and teacher; (6) networking teachers, students, materials, equipment, and other human resources by electronic means; and (7) providing multi-approaches to classroom management and instruction.

DITN is an alternative system of delivering vocational education to students in rural isolated areas of North Carolina. It is a network of five high school classrooms linked by audio conferencing equipment, electronic chalkboards, and computers with modems serving as the delivery system for teaching the Principles of Technology physics/ vocational course. A master teacher serves as the coordinator of the curriculum, the science and vocational labs, activities, and the teleconferencing. Teachers at each of the five schools elaborate on the science demonstrations and follow-up with the assignments and products that are developed by the students. They also teach mini-lessons on the teleconferencing system.

Small school systems serving sparsely populated areas often have difficulty in providing their high school students with some of the vocational learning opportunities offered in more urban areas. Yet these students have to compete for the same jobs in a workplace which is becoming more technical and academically demanding. The job market demands are greater than the supply in the areas of electronics and telecommunications, repair and maintenance, and service related jobs.

The North Carolina Basic Education Plan will move local school systems closer to providing better services for students attending small, rural schools who want access to a variety of vocational courses, but creative planning using communications technologies will be necessary. New approaches to class scheduling, instructional methods, and the utilization of personnel and instructional technology will be required. The DITN model serves as a prototype demonstration model for NC--planned by school administrators and teachers--in conjunction with the state and the Rural Education Institute at East Carolina University.

DITN provides a step-by-step process for using teachers, instructional technology, a mobile lab, and other resources in an interactive network to deliver courses which could not be taught otherwise because of lack of personnel, lab equipment, and other resources.

Research and development of alternative delivery systems is encouraged in the guidelines of the federal legislation and is the basis for the design and implementation of the DITN model. The evaluation at the end of the first school year has shown that students can achieve in course content using these alternative systems and that staff development for teachers can be delivered on the system.

b. Joint North Carolina Vocational Education - U.S. Army Electronics Project.

At the beginning of the 1985 school year, 18 Trade and Industrial Education electronic programs throughout North Carolina participated in the joint North Carolina Vocational Education - U.S. Army Electronics Project. The purpose of the project was to articulate the curriculum of the secondary T&I programs with the Signal Corps Basic Electronic Training program at Fort Gordon, Georgia. High school junior and senior Trade and Industrial Education electronics students from 23 local education agencies participated in the project.

Instructors were given two weeks of intensive training at Fort Gordon during the summer. While there, they received technical update, teacher training, curriculum articulation, precision soldering, and interactive laser video simulation training. Selected eleventh grade electronic students from the participating high school programs spent one week during the summer at Fort Gordon visiting the facilities and the job related programs.

Program improvement resulting from additional efforts are under way for North Carolina vocational education programs to work with the Army in a program which involves 180 academic competencies which are required to be successful in technical skill areas. The next efforts will be in the areas of transportation and student assessment.

Program improvements resulting from this project have been an expansion of the U.S. Army electronic curriculum materials to the existing North Carolina electronic programs. Staff development has been provided for the electronics instructors. Assistance in job opportunities for young people has been expanded in the field of communications-electronics.

Participation in the project has increased the competencies of electronics instructors from the point of content and methodology and provided administrators with comprehensive overview and procedure used in the U.S. Army to improve the quality of programs. It has contributed to the division effort to assure that state-of-the-art curriculum is available to local teachers. It also acted as an incentive to LEAs and motivated them to purchase state-of-the-art equipment for electronic programs.

Expansion of the project has benefited seven other states which now utilize the facilities at Fort Gordon.

c. Interactive VideoDisc Project - Hyde County Schools.

"Using An Interactive Video Instruction Model in a Selected Vocational Program" is a pilot project in which an interactive video system for a selected vocational program is being located, installed, and used in the instruction of students in a rural school system. The selected software will be made available to high school vocational students enrolled in one of five vocational courses in Hyde County, North Carolina.

Objectives of the activity include searching for and selecting an interactive video instructional system including the hardware and software for use as in the demonstration site; install the system; train the teaching and administrative personnel; and operate a demonstration site where administrators, teachers, and students can observe the use of interactive video in vocational education.

The demonstration site planned for Mattamuskeet High School is to be operated for approximately fifteen weeks during the second half of the 1985-86 school year. A secondary site at Ocracoke School will be operated for an additional seven weeks. Two-day demonstrations will also be provided in each of the eight regional education centers of North Carolina. Individuals who visit the demonstration sites will be involved in an evaluation of selected components of the system.

The project will be continued in program year 1986-87 and will result in a two-part plan that local education agencies can use in selecting, installing, and maintaining an interactive video instructional system. Guidelines included in the resulting handbook are to be based on research conducted by the project directors on the utility, feasibility, and transportability of interactive video as an instructional technique.

II. G. Research (continued)

d. Identification and Evaluation of Alternative Teacher Education Delivery Strategies - East Carolina University.

Highlights of the project included a massive search throughout the nation to locate examples of alternative strategies for the initial preparation and/or continuous professional development of vocational teaching personnel; a matrix showing the results of the search and the advantages and disadvantages of each strategy; and, a survey of pertinent personnel in North Carolina to determine perception and consensus as to the impact of the strategy on existing structures for vocational education administration, teacher education certification, staff/professional development, the Quality Assurance program, and the Career Development program.

A project steering committee was established and used throughout the project and a slide/sound or video/tape presentation of the project and its findings is being developed for use in project dissemination to pertinent and interested personnel in North Carolina.

e. Demonstration Model for Documenting Competency Achievement of Special Needs Students in Association with JTPA - Cumberland County Schools.

Because Cumberland County Schools initiated this project in program year 1985, junior and senior high special needs students enrolled in the job training vocational instructional program at the high school level will have access to a computer-managed and individualized instructional process.

The vocational director and vocational evaluation coordinator for Cumberland County Schools are conducting a research project to demonstrate the use of a computer management system documenting the employability skills achievement of special needs students in association with the local JTPA/PIC.

"The Competency-Based Employability Skills Program" instructional guide is being modified as needed to a format which can be computerized for use in the project. Software including a classroom management system, a test generator, progress reporter, end-of-program individual student achievement reporter, instructional activities bank, and grade tabulator is to be purchased and demonstrated in the project activities.

Workshops are planned to instruct the job training teachers in the use of the instructional guide, computer hardware and software; competence of the teachers is to be assured prior to initiation of the project activities.

II. G. d.(continued)

Student achievement data will be collected and tabulated by individual courses as well as by all eight course sites used in the project. Personnel involved in the project will be involved in evaluating the utility of the system at the high school level. This information along with the student achievement data will be used by a steering committee to prepare recommendations and a detailed plan for replication in local school systems in North Carolina.

A demonstration center is to be established to serve as an observation site for personnel from across the state; in addition, project staff will be conducting training workshops for selected vocational personnel across the state.

f. Field Test of a Computerized Model for Assessing and Documenting Student Competency Achievement - Richmond County Schools.

A demonstration model for "Obtaining Competency-Based Achievement Data on Students Enrolled in High School Vocational Programs" is being developed and piloted under the direction of the vocational director of Richmond County Schools. As part of the project activities, all competencies and three test items per competency for each vocational offering are being entered into computer files using the DATABANK software.

Project procedures involve the computer generation of pre and post-tests for each of the vocational programs offered at Richmond County Senior High School. Pre and post-tests (which include both written and performance test items) are being administered to students in the respective courses. Student performance on the tests is being analyzed per class section, per program, per school, per teacher, and per level for use in creating the sound base for curriculum content decisions. Computerized management of the assessment activity will be made possible via the features of DATABANK.

A highlight of the project is that for the first time achievement results reflecting vocational student performance will be available for local level decision making. It should be noted that Richmond County Schools has been implementing the competency-based achievement assessment for the past five years using teacher-developed tests and manual analysis procedures. Use of a computerized management system is making it possible to expedite the availability of data on individualized student performance prior to and following instruction and ease the teacher paperwork load.

Use of an electronic process for managing the measurement and documentation of student achievement of competencies will make it possible for (1) customized access to a computerized system for generating valid criterion-referenced tests from banks of test items with each bank to include measures of both cognitive and performance proficiency which are keyed to course competencies, (2) student responses and teacher ratings of student performance recorded on machine-readable (scanner) forms, (3) computerized scoring of tests, development of personalized learning prescriptions, and preparation of grades for report cards, and preparation of itemized competency reports for each student using customized software at the local level, and (4) aggregation of student achievement performance data especially gain scores by course/program and competency for use in marketing program success stories and for use in analyzing curricula for revisions or teacher staff development needs.

Gain scores (post-test minus pre-test) can be computed per student, per competency, per class section, per course, per program, per level in sequence, per teacher. Data summaries can be prepared and used locally at the system level to prepare reports on student achievement (Comprehensive Planning Process/State Accreditation - local newspapers) and for curriculum and instructional analyses for the following year. Item analyses can be used for revision of the test-items in each of the banks.

g. Correlation of Selected Social Studies Competencies with Competencies in Marketing and Business Education Courses - North Carolina State University.

Several math/science/social studies and vocational education competency correlation projects were conducted and/or completed by personnel located in Haywood County Schools and at two universities in North Carolina (North Carolina State University at Raleigh and East Carolina University at Greenville). Eight math/science projects were funded and implemented at the sites listed below. At four of the sites, math competencies associated with vocational competencies in selected courses were identified. At the remaining four sites, science competencies were correlated with vocational competencies in selected specialized vocational programs.

(1) Math/drafting and math/electronics at North Carolina State University; project director - Dr. Joe Clary

(2) Math/agricultural education, NC State University; Dr. Larry Jewell.

II. G. g. (continued)

(3) Math and trade/industrial education courses and math/industrial arts courses, Haywood County Schools; Mr. Ed Willis, vocational director, and Dr. Sam Smith, assistant superintendent.

(4) Science and trade/industrial education courses and science/industrial arts courses, Haywood County Schools; Mr. Ed Willis, vocational director, and Dr. Sam Smith, assistant superintendent.

(5) Math/home economics and math/business and office education, East Carolina University; Dr. Vila Rosenfeld and Dr. Lilla Holsey.

(6) Science/agricultural education, NC State University, Dr. Jeff Moss.

(7) Science/home economics and science/business and office education, East Carolina University; Dr. Vila Rosenfeld and Dr. Lilla Holsey.

(8) Social studies/business and office and social studies/marketing & distributive education, North Carolina State University; Dr. Joe Clary and Ms. Karen Nery.

Project procedures involved the math teachers, science teachers, social studies, and vocational teachers from the respective programs as well as general and vocational education state agency staff in deliberations regarding the correlation of competencies. Two types of products resulted from the projects - highly visual and/or computer-assisted teaching modules for use by teachers with students in high school vocational classes and computerized correlation matrices of vocational, math, and science competencies.

Training workshops with vocational teachers and vocational administrators were conducted by project personnel, and the project materials were made available for public school use. Since completion of the project, selected school systems have used the research findings in initiating local efforts to identify vocational subjects in which students may receive a credit toward the graduation requirements for math and/or science.

II. G. Research (continued)

h. Determination of the Impact of Selected Innovations on Vocational Education - Burlington City Schools.

(1) The Basic and Vocational Skills Program is one of three components of a funded research project being conducted under the direction of the central office in Burlington City Schools. It is a remedial instructional program in the basic skills combined with introductory hands-on orientation experiences in vocational education. The audience includes seventh and eighth grade students whose past academic records indicate poor self-motivation and under-acheivement in mastering basic skills.

The Basic and Vocational Skills Program is designed to provide a comprehensive program which will keep high risk students in school until graduation. Students spend four periods per day concentrating on the basic skills; one period per day learning hands-on vocational skills; one period per day in vocational orientation activities which include computer training and vocational guidance; and one period per day in physical education, art, and music (on an alternate day schedule).

An intensive basic skills curriculum has been developed for these students. As much as possible, language and mathematical skills are directly related to and correlated with the prevocational programs. The teachers of these students work together as a team in lesson planning and individual guidance of students.

The prevocational program is geared to the interests and aptitudes of these students. Areas of study include manufacturing, construction, communications, energy and power, typing, and microcomputers. A strong guidance program is a part of the academic and prevocational components of the program.

(2) A second component of the project provides an articulated effort with the Technical College of Alamance, the local two-year postsecondary institution. Through this effort carefully-selected seniors are able to enroll in a required "Communications Skills" course located on their individual campuses but taught by the postsecondary instructor. Students participating in the program may earn secondary and/or postsecondary credit depending on their demonstrated performance on the required competencies in the course.

The model established during the project year is being continued with five other areas of articulated programs to be available for the secondary students during the following school year. Most of these additional areas provide students with access to vocational or vocational-related programs which the secondary system, operating on its own, would be unable to provide.

(3) The third component of the project examined the impact of the increase in graduation requirements on enrollment in vocational education programs over a five-year period. Data on and from approximately thirty local education agencies (LEAs) similar to Burlington City Schools on several variables were collected as a basis for the analyses. Some significant findings have been compiled through the project activities and provided to the State Director for Vocational Education.

II. G. 1. Evaluation and Follow-Up of Consumer and Homemaking Graduates - University of North Carolina at Greensboro

As one of the four states participating in a national study initiated by a subcommittee of the American Vocational Education Home Economics Division Research section, two home economics teacher educators at the University of North Carolina at Greensboro have completed an extensive follow-up of consumer home economics (CHE) students. Specific purposes of the study were to (1) describe the characteristics of high school graduates (1984) who had completed three semesters of CHE while in high school; (2) determine how these 1984 graduates have used knowledge gained in CHE courses in relation to nutrition, parenting, and consumer education; (3) examine relationships among student scores and selected variables (size of community, school enrollment, home economics enrollment, race, class rank, and presence of FHA chapter), the number of CHE courses completed, and measures of responsibility in real life (i.e., using credit cards, owning cars, having insurance, eating nutritiously, etc.); and (4) identify issues related to the improvement of the CHE curriculum which need to be resolved.

Procedures for project management and data/or data collection used in the study include an active steering committee with state and local level representation, random sampling of the FY 84 CHE graduates from across the state, compilation of school-based descriptive data on students and programs, telephone interviews with each student in the sample per each of two years, computerized analyses, and the individual scoring of students' responses to the measures of responsibility questions using a pre-determined key based on knowledge taught in CHE courses. A slide/sound presentation on the project and its findings is now being completed for use by the SEA Home Economics staff, the eight Home Economics Education Regional Leadership Councils, the State Advisory Committee for Home Economics, and selected other decision making bodies in their deliberations for the improvement of the Consumer Home Economics Curriculum in the State of North Carolina.

II. H. Other - Secondary

1. How FY 1986 Fiscal Allotments to LEAs Contribute to Improving Programs

1985-86 Allotment Data for Vocational Education Program Improvement

LEA Number	LEA Name	Current Amount
010	Alamance County	34,703
011	Burlington City	31,011
020	Alexander County	22,889
030	Alleghany County	39,133
040	Anson County	49,470
050	Ashe County	52,423
060	Avery County	44,302
070	Beaufort County	50,203
071	Washington City	46,517
080	Bertie County	56,854
090	Bladen County	58,330
100	Brunswick County	57,592
110	Buncombe County	53,162
111	Asheville City	42,086
120	Burke County	34,703
130	Cabarrus County	38,395
132	Kannapolis City	23,627
140	Caldwell County	39,133
150	Camden County	34,703
160	Carteret County	51,685
170	Caswell County	46,517
180	Catawba County	33,965
181	Hickory City	19,197
182	Newton City	15,506
190	Chatham County	22,889
200	Cherokee County	48,782
210	Chowan County	45,040
220	Clay County	41,348
230	Cleveland County	45,778
231	Kings Mountain City	38,395
232	Shelby City	34,703
240	Columbus County	62,022
241	Whiteville City	47,255
250	Craven County	59,069
260	Cumberland County	62,760
270	Currituck County	40,610
280	Dare County	20,674
290	Davidson County	42,815
291	Lexington City	24,366
292	Thomasville City	20,674
300	Davie County	36,180
310	Duplin County	62,022
320	Durham County	47,255
321	Durham City	39,871

II. H. 1. (continued)

LEA Number	LEA Name	Current Amount
330	Edgecombe County	51,685
331	Tarboro City	44,302
340	Forsyth County	42,925
350	Franklin County	50,208
351	Franklinton City	39,133
360	Gaston County	42,825
370	Gates County	42,825
380	Graham County	39,133
390	Granville County	53,162
400	Greene County	45,040
410	Guilford County	42,825
411	Greensboro City	42,825
412	High Point City	33,441
420	Halifax County	66,452
421	Roanoke Rapids City	51,685
422	Weldon City	47,993
430	Harnett County	59,069
440	Haywood County	56,854
450	Henderson County	43,563
451	Hendersonville City	21,412
460	Hertford County	52,423
470	Hoke County	52,423
480	Hyde County	47,993
490	Iredell County	39,133
491	Mooresville City	20,674
492	Statesville City	24,366
500	Jackson County	47,993
510	Johnston County	62,760
520	Jones County	39,133
530	Lee County	45,778
540	Lenoir County	55,377
541	Kinston City	47,993
550	Lincoln County	34,703
560	Macon County	44,302
570	Madison County	53,162
580	Martin County	56,115
590	McDowell County	39,871
600	Mecklenburg County	
610	Mitchell County	40,610
620	Montgomery County	44,302
630	Moore County	49,470
640	Nash County	59,069
641	Rocky Mount City	51,685
650	New Hanover County	60,545
660	Northampton County	56,854
670	Onslow County	62,760
680	Orange County	31,749
681	Chapel Hill City	31,749
690	Pamlico County	42,825
700	Pasquotank County	51,685

II. H. 1. (continued)

LEA Number	LEA Name	Current Amount
710	Pender County	53,900
720	Perquimans County	47,255
730	Person County	49,470
740	Pitt County	61,284
741	Greenville City	53,900
750	Polk County	27,319
751	Tryon City	27,319
760	Randolph County	33,965
761	Asheboro City	15,506
770	Richmond County	56,854
780	Robeson County	69,406
781	Fairmont City	47,255
782	Lumberton City	54,639
784	Red Springs City	47,255
785	St. Pauls City	43,563
790	Rockingham County	34,703
791	Eden City	38,395
792	Western Rockingham City	38,395
793	Reidsville City	34,703
800	Rowan County	38,395
801	Salisbury City	16,244
810	Rutherford County	49,470
820	Sampson County	53,900
821	Clinton City	42,825
830	Scotland County	55,377
840	Stanly County	35,441
841	Albemarle City	20,674
850	Stokes County	45,778
860	Surry County	51,685
861	Elkin City	33,226
862	Mount Airy City	36,918
870	Swain County	45,778
880	Transylvania County	32,488
890	Tyrell County	43,563
900	Union County	39,133
901	Monroe City	24,366
910	Vance County	57,592
920	Wake County	38,395
930	Warren County	55,377
940	Washington County	48,732
950	Watauga County	51,685
960	Wayne County	59,069
962	Goldsboro City	47,993
970	Wilkes County	55,377
980	Wilson County	59,069
990	Yadkin County	49,470
995	Yancey County	48,731
TOTAL		6,157,175

II. H. 2. How New Formula Allotments Contributed to Improving Programs

Program improvement funds are allotted to local education administrative units based on a weighed formula which includes the following factors: 1) concentration of low income families and 2) average daily membership in grades 7-12. The weighed formula ensures that more funds are allotted to local education administrative units located in economically depressed areas, than are allotted to those not located in economically depressed areas. The implementation of this formula has provided those local education administrative units with the greatest needs to make substantial improvements in vocational education programs through the purchase of additional equipment and instructional materials, to increase participation in staff development activities, and the expansion of programs to meet the particular needs of individuals located in the economically depressed areas of the state.

II. H. 3. How Principles of Technology Contributed to Improving Programs

Principles of Technology was field tested during the 1985-86 school year at 12 high schools with an enrollment of 155 vocational education students. It is an applied science course that contains the necessary math instruction to accomplish the objectives of the course. The course is designed as a foundation for future technicians in a wide range of technologies. It enables students to study the principles and concepts of science as they relate to mechanical, electrical, fluid, and thermal systems. It is taught by vocational teachers in a vocational setting to attract more students into vocational education.

II. H. 4. How Military/Education Activities Contributed to Improving Programs

SEE II. G. b.

II. H. 5. How Follow-Up Report on Vocational Education Students Contributed to Improving Programs

Surveys of nearly 47,000 students who completed vocational programs in 1984-85 have been used by local and state personnel to evaluate the effectiveness of programs and to highlight those areas of specific programs where improvement is needed. Responses to questions dealing with the education and work status of these students in the year following completion of the course show the percentage of unemployment among this group and the percentage continuing their formal education beyond high school.

In those schools and local units where the unemployment rate of completers exceeds the county unemployment rate for all youths aged 16-19, that program is analyzed to determine the cause; improvement strategies are included in the local plan for vocational education.

Students rate their vocational program on usefulness in preparation for work and further education. The curriculum for individual courses is examined to determine the relationship of responses to the course objectives and outcomes as established by the instructor.

Students indicate in the survey those knowledges and skills they wish they had learned more about. Program areas in local units use this as a guide for revising course content to meet student needs.

The statewide summary data for each of the skills program areas has been used by state staff to highlight those local programs where technical assistance is needed and to indicate possible curriculum revisions at the state level.

The student follow-up data has been used in approximately 28 local units in 1985-86 to assess program strengths and weaknesses during the program review process. Strategies for overcoming the weaknesses are then included in the basic improvement plan. This plan must be reviewed annually by local personnel to determine their progress in achieving improvements that have been identified. See Table 3 for a sample of the statewide summary student follow-up data.

Employers were surveyed in 1985 to determine work quality, technical knowledge, and work attitude of 1983-84 completers. Reports of responses by program area in each local unit are returned to teachers and administrators of vocational programs in the LEA.

These employer surveys are used in assessing the vocational programs during the program review process and form the basis for some of the improvements that are included in the basic improvement plan for the LEA. See Table 4.

II. H. 6. How Dissemination of Data Contributed to Improving Programs

Data used for program planning, improvement, and evaluation is collected through the local administrative units and processed by the Data Collection Unit of the Division of Vocational Education. Reports of student enrollment, completer follow-up surveys, and employer surveys are disseminated to state staff, regional administration, and LEA administration to improve vocational programs.

Data collected in September of each year reveals numbers of students enrolled in Grades 7-12 by state course number in the eight program areas. This is also shown by race, sex, and handicapping condition. This data is made available to local directors of vocational education, regional coordinators, and state level consultants. See Tables 5 and 6 for statewide enrollment totals for Grades 7-8 and for Grades 9-12.

This data is used in program planning, program review, and evaluation at the local level and in planning at the state level.

Responses to a survey of completers of vocational programs are collected in the spring of each year. Data collected in the survey reveals the work and education status of completers, the degree to which the vocational program prepared the student for work or further education, and who influenced most the student's decision regarding vocational program and career choice. The data collected also reveals the skills students wish they had learned more about, the hourly wage being earned by program completers, and the distance from the student's high school to the work site.

This completer data is reported for each local unit in the state along with statewide summary data. Summary survey reports of the local units can then be compared to the statewide totals. This data is used in making decisions related to curriculum revision. During the program review and improvement process this data is used to substantiate perceived strengths or weaknesses of local vocational programs. It is also used in planning local programs to identify those programs where completers can expect to find adequate job opportunities. See Table 3.

Data is collected from employers of completers of vocational programs to determine the quality of the student's work attitude, work quality, and technical knowledge. Employers are asked to compare the vocational completer with other initially hired employees without vocational training.

Employer follow-up data reported to local vocational directors, regional coordinators, and state staff is used by personnel, particularly at the local level, to evaluate the effectiveness of vocational programs in preparing students for entry-level employment. See Table 4.

II. H. 6. How Dissemination of Data Contributed to Improving Programs (continued)

At the end of each school year, a report of the number of students involved in cooperative work experiences, including number of hours worked and total gross wages, is prepared and disseminated to local, regional, and state staff personnel in vocational education.

Enrollment data, student and employer follow-up data, and cooperative wage and hour data are used for public information as well as program planning and evaluation. Some of the data from these four reports has been condensed into a "1986 Numbers Report" and has been distributed to vocational directors, teachers, regional coordinators, and state staff to use in press releases, reports, and public presentations. See Table 7.

II. H. 7. How Vocational Education Program Evaluation Contributed to Improving Programs

Twenty-three local education agencies participated in the program review process. The process included teachers assessing their programs using pertinent data and 13 standards. Teacher groups then identified their strengths, weaknesses, and needed improvements based upon available data and technical assistance from state staff. The LEAs developed a five-year plan to determine priorities and funds required to make local improvements. The plan became part of the local plan application and state accreditation.

Over 1,320 teachers were involved in the process. Typical improvements identified were: purchasing of state-of-the-art equipment, increased personnel development activities, and increased involvement of business/industry personnel with local programs.

II. H. 8. How the Local Plan Process Contributed to Improving Programs

The local plan process by secondary eligible recipients provides a variety of checks and balances for improving programs.

I. A. 6. Program Improvement (from Local Plan)

a. The LEA will participate, when selected, in the evaluation of not less than 20 percent of the eligible recipients assisted by federal funds within the State in each fiscal year. (F) (Sec. 113 [b] [9] [C])

b. A formal system of evaluation is conducted annually to determine how the programs meet their stated objectives, and are relevant to employment and occupational needs of students. Evaluation results are to be maintained in the local education agency file designated by the superintendent and are used for improvement in programs. (S) (APA 2E .1608)

c. An organized system for conducting follow-up studies to determine the effectiveness of the vocational instructional programs and guidance and counseling, is used by the LEA. Results are maintained in the school file designated by the principal and a compilation of all schools maintained in the office of the vocational director. Records and other information needed to carry out this function are maintained in the teacher's files. (S) (APA 2E .1608)

d. The LEA has on file the findings of evaluations of programs operated in the LEA during the previous 1 year and 5 years. (S) (115C-154 [10])

e. The LEA has the capacity to deliver the vocational education services based upon needs identified through assessments of the following: (F) (Sec. 113 [a] [3] [E])

(1) The current and projected occupational needs and the current and projected demand for general occupational skills within the State. (F) (Sec. 113 [a] [3] [A])

(2) The needs of students in order to determine how best to improve student skill levels in light of the State's occupational and skill requirements. (F) (Sec. 113 [a] [3] [B])

(3) The special needs of disadvantaged and handicapped individuals for access to vocational education and vocational services in terms of labor market needs. (F) (Sec. 113 [a] [3] [C])

(4) The quality of vocational education in terms of:

II. H. 8. (continued)

(a) The pertinence of programs to the workplace and to new and emerging technologies.

(b) The responsiveness of programs to the current and projected occupational needs in the state.

(c) The capacity of programs to facilitate entry into and and participation in, vocational education and to ease the school-to-work and secondary-to-postsecondary transition.

(d) The technological and educational quality of vocational curricula, equipment, and instructional materials to enable vocational students and instructors to meet the challenges of increased technological demands of the workplace.

(e) The capability of vocational education programs to meet the needs for general occupational skills and improvement of academic foundations in order to address the changing content of jobs. (F) (Sec. 113 [a] [3] [C])

The aformentioned assurances are in keeping with local administrative procedures and/or board policies.

_____
Superintendent

_____
Chairperson, Board of Education

Local vocational education advisory councils are required by state law and continue to contribute to improving programs with their technical expertise, equipment donations, financial support, and coordination of efforts where appropriate. LEAs provide assurances and documentation on participation and activities. See Tables 8 and 9.

The entire Part II section of the local plan is designed to identify how vocational education programs will be improved annually. Program status, improvement needs and strategies for accomplishing the desired improvement is presented with designated time lines for completion. Fiscal resources for attaining the desired results are tied to program improvement.

II. H. 9. How the Vocational Education Curriculum Study Contributed to Improving Programs

These courses have experienced an increase in enrollment as a result of the curriculum study and thrusts of the state staff:

Exploring Technology and Contemporary Industries (Industrial Arts) has increased from 376 classes with 6,804 students in 1984-85 to 491 classes with 7,866 students in 1985-86. Computer Applications (Business and Office) has increased from 46 classes with 853 students in 1984-85 to 93 classes with 1,574 students in in 1985-86. Introduction to Computers/Business Data Processing (Business and Office) course has increased from 877 classes in 1984-85 to 939 classes in 1985-86. Five additional Electronics (Trade and Industrial) programs were offered in 1985-86 than in 1984-85.

10. How Vocational Student Organizations Contributed to Improving Programs

VSOs - Eight leadership conferences were held where 10,565 students attended to participate in 269 state competitive events. Also, about 12,500 students participated in regional competitive events. Both the state and regional competitive events were held to assess competencies developed in vocational courses and to recognize outstanding achievement by individuals and teams/groups. The results of these competitive events also help in determining curriculum changes and teaches personnel development needs. About 939 business/industry representatives assisted vocational student organizations in coordinating these events. The supplies and materials used in many competitive events are donated by business and industries closely associated with the vocational program.

A calendar showing vocational students with successful careers was distributed to local administrators and legislators. Its purpose was to highlight how vocational courses and vocational student organizations contribute to the success of students in the workplace.

II. H. 11. How Production Work Activities Contributed to Improving Programs

Production work activities in all skill development programs provide a realistic evaluation of student competency achievement and proficiency. The setting/environment is indication of actual working conditions students will encounter in the business and industrial community after graduation and upon employment in the public or private sector. This training contributes to state-of-the-art skill development and program improvement.

The following program areas reflect the scope and magnitude of the production work concept:

AGRICULTURAL PRODUCTION - Producing of crops and animals within the school/land laboratory evaluates and reflects competency attainment.

AGRICULTURAL MACHINERY/EQUIPMENT/STRUCTURES - Assembling farm equipment for equipment dealers. Repairing tractors and equipment for farmers. Laying out and constructing farm buildings provides competency evaluation and instant feedback for program improvement.

ORNAMENTAL HORTICULTURE - Producing and distributing greenhouse plants, designing, and implementing landscape plans. Landscape and plant trees and shrubbery for the houses built by the construction trades students.

FORESTRY - Producing, managing, and marketing forest products to ensure a comprehensive understanding and mastery of the industry.

BUSINESS AND OFFICE EDUCATION - Basic skills/competencies are developed through activities on business machines such as electronic calculators, electronic typewriters, microcomputers, and word processors. Students enrolled in Office Occupations II, Computerized Accounting Occupations II, and Business Data Processing Occupations II participate in the cooperative component of these courses.

Through cooperative methodology students utilize and further develop skills/competencies in part-time office positions in the business community.

II. H. 11. (continued)

OFFICE OCCUPATIONS II - Students develop basic skills/ competencies in a variety of office positions such as: general office clerk, records clerk, clerk-receptionist, secretary, typist, word processor in a real life employment setting. These experiences contribute to maintaining up-to-date curricula in basic skills requirements.

COMPUTERIZED ACCOUNTING OCCUPATIONS II - Students continue to develop skills/competencies through employment as accounts payable/receivable clerks, bookkeepers, inventory clerks, payroll clerks, billing clerks, tax preparer trainees, and related computerized occupations.

DATA PROCESSING OCCUPATIONS II - Students build on skills/ competenies in business by performing computer operator, data control clerk, data entry operator, and data processing librarian task on state-of-the-art equipment in the employment environment which provides instant feedback for program improvement.

Feedback from employers through the students and teacher/ coordinators provide information on needed training/skills resulting in modifications/improvements to course competencies and instructional guides.

HEALTH OCCUPATIONS - Students in advanced health occupations are provided clinical experiences in local hospitals, doctors offices, and other medical specialty facilities. These experiences validate competency attainment in a real life setting under the supervision of medically trained personnel. Program improvement is assured through teacher coordination with the medical community and the use of state-of-the-art equipment.

HOME ECONOMICS

Child care - Students utilize their competencies by supervising and caring for children in a day care center designed for that purpose. Local school employees leave their children at the center and complete care is provided until parents pick them up after school.

Clothing - Students utilize their competencies to construct a a personal garment according to style by managing a budget, selecting fabric, laying out patterns, and final alterations of the finished product. They also assist the drama department by constructing costumes for local school plays.

Food - Students plan and prepare a variety of foods for individual, small and large group consumption. PTAs, committees, banquets, and other meal functions are planned and carried out by students. This includes planning based on nutritional value, purchasing, preparing, serving, and cleaning up after the function.

Home Interior - Students utilize competencies to design the interior decorations of homes built by the construction trades students.

Human Services - Students utilize their competencies to provide specialized services based on the needs of the individual in the appropriate environment.

MARKETING EDUCATION

Cooperative Education - Students in all marketing education classes have the opportunity to develop/utilize their sales/marketing competencies in local business and industry part-time employment. This ensures state-of-the-art training commensurate with the employers needs. This real life setting provides instant feedback for improving programs and modifying curricula based on demand. Students also operate the local school supply store which requires computerized inventory management, distribution, sales, and human relations technique development. Marketing education students promote and sell the houses built by the construction trades students.

TRADE AND INDUSTRIAL EDUCATION

Industrial Cooperative Training - Students receive realistic training in the industrial environment relating to their career objective. Competency development is related to job expectations performed on state-of-the-art equipment.

Aerospace - Students construct a small private class airplane which is tested and sold at public auction.

Auto Mechanics - Students repair automobiles, trucks, vans, and buses. They schedule, prepare work orders, procure parts, and process payment as a part of the comprehensive training.

Diesel Mechanics - Same as auto mechanics

Auto Body Repair - Students repair automobiles, trucks, vans, and buses by using the latest materials appropriate for the type of repair required.

Masonry - Students build houses and other masonry construction projects on and off campus using modern materials and up-to-date techniques as required by the industry and building codes.

Cabinetmaking - Students take measurements, figure materials and cost, build and install built-ins such as cabinets and case work cabinet buildings in homes and other appropriate structures according to customer specifications.

II. H. 11. (continued)

Furniture - Students construct furniture of wood and upholstered materials. The product is drawn, materials purchased, constructed, and finished by the student which may be for a customer or retained by the student.

Carpentry - Students perform their carpentry skills in building construction with other building trades students. The completed houses are sold at public auction with the revenue generated returned to the vocational education budget.

Drafting - Students develop the design and blueprints for the building construction and other projects completed by the construction trades students.

Plumbing - Students design, measure, purchase, and install the plumbing in building construction under the inspection for code compliance of a licensed plumber.

Electrical Trades - Students wire buildings which may be constructed by the building trades students. Building construction or maintenance projects are inspected for code compliance by the building code inspection office.

Cosmetology - Advanced students shampoo, prepare, and style hair according to customer preference. The latest trends and styles reflect up-to-date training in a variety of hair styles indicative of community mores.

Marine Occupations - Students learn fishing and shrimping skills, boat operations, and navigation skills in real life settings. The catch is sold to local seafood processing plants and the money returned to the local vocational education budget.

Graphics & Industrial Communications - Students utilize competencies to produce forms, tables, charts, graphs, and information for customers such as report cards, permanent student record folders, newspapers, sporting event programs, certificates, and other printed materials to specifications.

Tailoring - Students utilize their competencies to construct garments specifications which are stylish and in good taste.

Machine Shop - Students learn machine techniques and individual competencies by producing a job to specifications. Funds generated are returned to the vocational program for the completed product.

Sheetmetal - Students design, measure, layout, produce, and install the ductwork for the air conditioning and heating system in buildings.

II. H. 11. (continued)

SPECIAL PROGRAMS

Cooperative Education - Students utilize the competencies acquired in a real life part-time employment environment while developing additional competencies on the job. The wide range of abilities of disadvantaged and handicapped youth are accommodated in employment and training appropriate for their interest, ability, and capacity for a productive and rewarding career.

II. H. 12. How Cooperative Vocational Education Methodology Contributed to Improving Programs

During the regular school year 1985-86, 18,993* students were enrolled in courses where the cooperative method of instruction was used; there were 8,161 students who worked during the previous summer. These students worked 2,265,777 hours during the summer and 13,203,570 hours during the school year for a total of 15,469,347 hours. They earned $8,322,948 in the summer and $48,973,725 during the school year. The total earned, $57,296,673, represents approximately 10% of the total funds spent on secondary vocational education.

The average hourly wage was $3.71. Approximately 748 teachers representing agriculture, business and office education, occupational home economics, marketing education, and trade and industrial education coordinated the programs.

Cooperative education continues to improve the business and industry partnership between the local school and community so vital to quality vocational education programs.

*Based upon 129 LEAs out of 141 reporting data

II. H. 13. How State Fair Exhibits Contributed to Improving Programs

The exhibits for the Vocational Education State Fair are selected by regional chairpersons on the State Fair Committee as model programs for vocational education. Each exhibit represents a program area in vocational education (agriculture, home economics, health occupations, etc.) and exemplifies the most recent technology available in that particular program area, e.g. competencies, content, instructional techniques, and methods. These exhibits are viewed by the general public, which includes teachers, administrators, students, parents, advisory committee members, business/industry representatives, and others, who make recommendations for improvement of programs at the local level. During 1985-86, approximately 500,000 people viewed the exhibits.

During the period from 1980 through 1985, the Vocational Education State Fair Exhibit received either the Governor's or Commissioner's Award of Excellence which is the highest honor given for an educational exhibit.

14. How the State Vocational Education Planning and Coordination Committee Contributed to Improving Programs

The committee has contributed to improving vocational education programs at the secondary and postsecondary level. Six meetings were held during PY 1985-86 and were preceded by an organization meeting.

The fiscal organization and operation for secondary, post-secondary and each state agency represented was presented to facilitate planning and implementation of programs, services, and activities while avoiding duplication of effort. The utilization of resources to provide services for clientele through a variety of programs was explored extensively.

Program purpose, content and delivery systems were presented by secondary, postsecondary and each state agency represented to acquaint members with decision making information. The exchange of information and ideas contributed to proposed modification of operations to better serve eligible recipients of education and training. Every aspect of services to appropriate populations relative to the purpose of the Act was reviewed.

The comprehensive discussion on fiscal and program operations at all levels in all agencies contributed to the identification of concerns the committee recommended for action. The concerns were prioritized to expedite reasonable expectations for accomplishments.

II. H. 14. (continued)

Each state agency representative developed a goal statement for his/her agency germane to the prioritized concerns of the committee.

This effort has promoted the identification of strategies for accomplishing the goals of each state agency in their effort to improve program services and activities at all levels.

Coordination with JTPA has provided appropriate services for special populations that complement the vocational education services at all levels. Procedures to ensure involvement in local and state planning has reached fruition.

15. How Coordination with JTPA Contributed to Improving Programs

The coordination between vocational education and JTPA during the current 1985-86 year has continued to improve resulting in better programs and services for our youth throughout the state.

Staff development activities for LEA staff operating JTPA funded programs have been coordinated with the state vocational education staff and state JTPA staff. Workshops involving staff from both divisions have been conducted for Extended School Day and HELP Projects. In addition, the director of the support programs division, serves on the Vocational Education Planning and Coordination Committee and is well informed and aware of the needs to plan and coordinate the functions of vocational education and JTPA.

The major JTPA projects operating are the Dropout Prevention/Job Placement Centers, the Extended School Day Program, and Project HELP.

Each of the projects have vocational components that are coordinated with each project. Curriculum emphasizes pre-employment skills training which includes assessment, testing, and counseling; occupational career and vocational exploration; job search assistance; job holding and survival skills training; remedial education; labor market information, and job-seeking skills training. Referrals are made to vocational counselors and courses as appropriate.

Job development and job placement is an integral component of all programs. During 1985-86, the following occurred:

Dropout Prevention/Job Placement Centers (1,500 Students)

- 1,462 students were placed in either full or part-time, private sector jobs earning a total of $1,343,041.
- 763 students were placed in either full or part-time, public sector jobs earning a total of $560,254.

II. H. 15 (continued)

Extended School Day Programs (650 Students)

- 201 students were placed in full or part-time, private sector jobs earning a total of $452,813.
- 39 students were placed in full or part-time, public sector jobs earning a total of $78,835.

Project HELP is a model coordination project. Its design links the efforts of vocational education, exceptional education, JTPA, and the employment sector in expanding and improving vocational opportunities for handicapped learners. The program offers support to academic and vocational education in preparing these learners with realistic functional work skills.

Table 3

1986 FOLLOW-UP

MAIN LABOR MARKET STATUS OF COMPLETERS OF OCCUPATIONALLY AND NON-OCCUPATIONALLY ORIENTED VOCATIONAL EDUCATION PROGRAMS [1] (1984-85 COMPLETERS.	TOTAL RESPONSES AND PERCENTAGES	Total Responses	% Employed Full Time	% Employed Part Time	% Military	% Not Employed, Seeking Part-Time Work	% Not Employed, Seeking Full-Time Work	% Homemaker	% Not Employed, Not Seeking Work	TOTAL COMPLETERS
All Regular Occupationally Oriented Programs	28,859	27%	34%	4%	11%	6%	1%	18%	45,336
Agricultural Education	2,298	31%	32%	5%	10%	5%	1%	15%	3,376
Marketing Education	2,083	39%	32%	5%	6%	5%	2%	11%	3,277
Health Occupations Education	1,100	21%	30%	2%	8%	5%	2%	32%	1,603
Occupational Home Economics	840	29%	25%	3%	8%	12%	5%	17%	1,278
Business and Office Education	9,446	16%	38%	2%	14%	5%	1%	24%	14,812
Trade and Industrial Education	13,092	32%	32%	6%	10%	6%	1%	14%	20,990
†Special Occupationally Oriented Programs	867	25%	25%	3%	16%	12%	3%	16%	1,553
All Regular Non-Occupationally Oriented Programs	DATA NOT COLLECTED IN 1986								
Consumer and Homemaking									
Industrial Arts Education									

[1] *Represents data from 138 of 141 local education agencies.*

†*Special separate programs and cooperative education programs for disadvantaged and handicapped students.*

Table 4

1985 FOLLOW-UP

EMPLOYER RATINGS OF OCCUPATIONALLY AND NON-OCCUPATIONALLY ORIENTED VOCATIONAL EDUCATION COMPLETERS

(1983-84 Completers)

	TOTAL RETURNS	% Above Average - Quality	* Rating on a Scale of 1 - 5	Work Attitude - % Above Average	* Attitude Rating on 1 - 5 Scale	Technical Knowledge - % Above Average	* Technical Knowledge Rating 1 - 5 Scale	Overall Rating - % Above Average	* Overall Rating on 1 - 5 Scale	PREPARATION: % Better Prepared	% About the Same	** Rating on 5 Point Scale	Decision on Hiring - Yes
All Regular Occupationally Oriented Programs	2847	78%	4.13	79%	4.20	72%	3.98	77%	4.07	51%	17%	4.37	43%
Agricultural Education	190	78%	4.11	81%	4.19	71%	3.94	77%	4.01	51%	12%	4.54	40%
Marketing/Distribution	229	80%	4.23	78%	4.24	75%	4.05	79%	4.13	51%	16%	4.41	39%
Health Occupations Education	99	76%	4.10	83%	4.27	75%	4.06	74%	4.04	46%	12%	4.40	26%
Occupational Home Economics	194	73%	4.01	73%	4.04	67%	3.87	71%	3.95	46%	27%	4.12	41%
Business and Office Education	618	83%	4.29	84%	4.34	78%	4.09	84%	4.22	52%	14%	4.45	49%
Trade and Industrial Education	1079	75%	4.06	78%	4.12	69%	3.93	74%	4.00	51%	18%	4.33	44%
†Special Occupationally Oriented Programs	63	65%	3.71	70%	3.88	53%	3.56	67%	3.79	48%	19%	4.20	35%
All Regular Non-Occupationally Oriented Programs	375	75%	4.06	76%	4.10	71%	3.93	74%	4.01	46%	23%	4.28	36%
Consumer and Homemaking	298	74%	4.05	76%	4.09	73%	3.94	73%	4.00	46%	24%	4.25	35%
Industrial Arts Education	77	75%	4.11	77%	4.18	65%	3.89	75%	4.05	42%	18%	4.40	37%

*Rating Scale: 5=Very Good 4=Good 3=Average 2=Poor 1=Very Poor

**Rating Scale: 5=Better Prepared 3=About the Same 1=Less Prepared

†Special separate programs and cooperative education programs for disadvantaged and handicapped students.

Table 5

VOCATIONAL EDUCATION ENROLLMENT - DUPLICATED COUNT
VEIS 1 Grades 9 - 12 School Year 1985-86
Statewide Program Totals

Program Area	Total Enrollment	White	Black	A. Indian	Asian	Hispanic	Incomplete Response
Agriculture	25,106	19,005	5,257	785	15	35	9
Business & Office Education	123,932	88,712	32,558	,728	611	303	20
Marketing Education	15,963	10,918	4,801	173	42	28	1
Health Occupations	7,761	5,185	2,339	180	30	26	1
Occupational Home Economics	7,777	3,257	4,350	139	8	21	2
Trade & Industrial Education	56,063	39,919	14,931	900	194	99	20
Consumer Home Economics	47,151	25,531	20,444	946	105	115	10
Industrial Arts	18,263	12,617	5,234	296	68	46	2
Prevocational	6,752	4,334	2,197	154	49	14	4
Principles of Technology	142	84	51	1	1	5	---
Basic & Vocational Skills	7	3	4	---	---	---	---
Special Programs	3,867	1,661	2,140	54	8	4	---
TOTALS	312,784	211,226	94,306	5,356	1,131	696	69

Table 6

VOCATIONAL EDUCATION ENROLLMENT - DUPLICATED COUNT
VEIS 2 7th and 8th Grades, School Year 1985-86
Statewide Program Totals

Program Area	Total Enrollment	White	Black	A. Indian	Asian	Hispanic
Agriculture	190	144	44	---	2	---
Business Office Education	4,940	3,396	1,486	9	43	6
Consumer Home Economics	8,520	4,992	3,240	220	54	14
Industrial Arts	8,266	5,349	2,699	137	67	14
Prevocational Education	78,647	52,885	24,094	1,120	335	213
Basic & Vocational Skills	2,650	1,553	1,043	50	1	3
Special Programs	780	427	351	1	1	---
TOTALS	103,993	68,746	32,957	1,537	503	250

Table 7

NUMBERS REPORT DISTRIBUTED IN 1985-86
(From Previous Years' Data)

Enrollments Grades 9-12 1983-84

Some students are enrolled in more than one vocational program

	Number	Male	Female
Business & Office	104,231	30,213	74,018
Trade and Industrial	52,674	45,714	6,960
Consumer Homemaking	44,405	9,109	35,296
Agriculture	24,231	20,969	3,262
Industrial Arts	14,429	12,918	1,511
Marketing	12,236	4,674	7,562
Health Occupations	7,189	885	6,304
Occupational Home Economics	6,271	993	5,278
Special Programs	4,059	2,436	1,623
	269,725	127,911	141,814

Enrollment Grades 7-8 1983-84

Prevocational	87,544	45,977	41,567
Consumer Homemaking	9,267	3,256	6,011
Business and Office	5,487	2,659	2,828
Industrial Arts	7,880	5,840	2,040
Special Programs	1,566	990	576
Agriculture	378	250	128
	112,122	58,972	53,150

Student Participation in Vocational Education 1983-84*

Total students in Grades 7-12	508,654
Total students in Grades 7-12 in vocational courses	308,973
Percent of students taking at least one vocational course	60.7%

Fiscal Expenditures 1983-84*

State/Federal	$ 92,824,852	74%
Local	33,435,079	26%
	$126,259,931	100%
Expenditure per student in vocational courses	$505	
Expenditure per student in all school programs	$2,257	
Current expenditures for all school programs	$2,448,697,684	

*North Carolina Public Schools Statistical Profile 1985

Table 7

Completer* Data 1983-84

Total Completers	40,887
Percent Employed full-time or part-time	62%
Percent continuing education full-time or part-time	37%

Comparisons:

Percent of vocational education completers not employed, seeking full-time work	12%
Percent of all youth 16-19 statewide not employed, seeking full-time work	20.2%

*Completer courses are those in a program sequence that have at least one prerequisite and that provide job skills training.

Program Area Course Offerings 1983-84

Trade and Industrial	98
Industrial Arts	30
Marketing	24
Business and Office	23
Agriculture	19
Consumer and Homemaking	16
Occupational Home Economics	11
Special Programs	7
Basic & Vocational Skills	4
Health Occupations	3
Vocational Development	2
Principles of Technology	2
	239

Special Populations Served in Vocational Programs Grades 9-12 1983-84

	Limited English Proficient	Disadvantaged	Handicapped
Agriculture	77	2,181	1,771
Business & Office Education	234	6,921	1,680
Consumer Home Economics	292	6,543	3,628
Health	18	474	219
Industrial Arts	177	2,097	1,592
Marketing	25	900	356
Occupational Home Economics	21	1,103	503
Prevocational Education	1,255	16,022	5,485
Special Programs	18	2,757	2,410
Trade & Industrial Education	259	4,758	3,114
	2,376	43,756	20,758

Table 7

Vocational Student Organizations 1984-85

	No. Chapters	Members
Future Farmers of America	245	16,265
Future Homemakers of America--Home Economics Related Organizations	333	12,641
Future Business Leaders of America	262	11,327
Vocational Industrial Clubs of America	237	10,535
Distributive Education Clubs of America	207	9,636
Career Exploration Clubs of North Carolina	201	9,055
Health Occupations Students of America	121	4,283
American Industrial Arts Student Association	40	848
Totals	1,646	74,590

Professional Staff 1984-85

Directors of Vocational Education	149
Vocational teachers & counselors	5,900
Total	6,049

Advisory Committees 1984-85

State Council on Vocational Education	13
State Advisory Committees:	
Home Economics	21
Marketing Education	24
Business & Office Education	20
Health Occupations	23
Industrial Arts	12
Trade & Industrial	21
Agriculture	17
Prevocational	16
Local Advisory Committees in 141 LEAs	2,760
	2,927

PART I

B. COMPOSITION OF VOCATIONAL EDUCATION ADVISORY COUNCIL
(Indicate Number)*

Clientele Group	Race and Sex								
	White		Black		Amer. Indian		Other		
Represented	M	F	M	F	M	F	M	F	Total
Business									
Industry									
Labor									
Trade									
Technical									
Office									
Health									
Home Economics									
Agricultural									
Marketing									
Education									
Industry Hunters									
Related Agencies (Specify such as representatives of									
Exceptional Children, Voc. Rehab., Apprenticeship,									
etc.)									
JTPA									
Parents									
Others (Specify)									
Total									

*If an individual fits more than one category, indicate that person's duplication in parentheses in all but one block.

Table 9

PART I

C. LOCAL ADVISORY COUNCIL ACTIVITIES AND LOCAL COORDINATION WITH JTPA

Activities	Number of Times Fiscal Year This Activity Occurred			
	JTPA*	Council	Individual	Sub Group
Orientation Meeting(s)				
Review Occupational/Community Surveys (Job Needs) (Skills Required)				
Advise on Course Content (Relevance of Programs)				
Review of Student Placement Data				
Equipment and Facility Planning Recommendations				
Identification of Potential Vocational Teachers				
Identify Community Resources to Support Vocational Education Programs				
Review Evaluation Data				
Advise on Local Plan Development (a) Three-Year Plan				
(b) Annual Application				
Conduct Program Visitations in The LEA				
Conduct Program Visitations Outside the LEA				
Other (Specify)				

*Check involvement with JTPA in this column. Based on priorities in the Carl Perkins Vocational Education Act, it is recommended that a copy of the completed plan be sent to the Private Industry Council (PIC) in addition to appropriate JTPA involvement in the review of the draft plan as noted in the Assurances.

III. Consumer and Homemaking Accomplishments

A. Programs in Depressed Areas

The total Concentration of Low Income Families (CLIF), points of 42 or more are classified as being in the economically depressed category. The data is based upon the current Department of Commerce 1980 Census Study for Low Income Families. See Table 10.

Economically Depressed Areas
(by Local Education Agency)

Table 10

650 New Hanover	540 Lenoir County	580 Martin
770 Richmond	541 Kinston	220 Clay
990 Yadkin	330 Edgecombe	050 Ashe
440 Haywood	331 Tarboro	210 Chowan
150 Camden	030 Alleghany	460 Hertford
040 Anson	350 Franklin County	310 Duplin
390 Granville	351 Franklinton	890 Tyrrell
730 Person	710 Pender	720 Perquimans
700 Pasquotank	170 Caswell	780 Robeson
950 Watauga	370 Gates	781 Fairmont
610 Mitchell	100 Brunswick	782 Lumberton
560 Macon	070 Beaufort	784 Red Springs
060 Avery	071 Washington	785 Saint Pauls
430 Harnett	740 Pitt	090 Bladen
960 Wayne	741 Greenville	240 Columbus
962 Goldsboro	690 Pamlico	241 Whiteville
980 Wilson County	820 Sampson	570 Madison
260 Cumberland	821 Clinton	660 Northampton
500 Jackson	380 Graham	080 Bertie
670 Onslow	910 Vance	870 Swain
510 Johnston	520 Jones	480 Hyde
830 Scotland	470 Hoke	930 Warren
250 Craven/New Bern	940 Washington County	420 Halifax
270 Currituck	200 Cherokee	421 Roanoke Rapids
640 Nash	400 Greene	422 Weldon
641 Rocky Mount	995 Yancey	

B. Support Services and Activities in Depressed Areas

In 1985-86, 25,882 students or 43% of the Consumer and Homemaking students were in the areas receiving funding for depressed areas. With this large percentage of students in depressed areas, attention was focused on basic living skills including consumer education. Curriculum to be used in the 1987 school year with the Revision of the Program of Studies was identified for the comprehensive courses that focus on these issues. Also reviewed curriculum to serve the needs of male students in our programs. Another major interest in the state that is prevalent in depressed areas, as well as non-depressed areas, is the pregnant teen. A learning

III. B. (continued)

package on nutrition for the pregnant teen was developed and is being field tested in 1986-87 for statewide distribution in 1987-88. Another major activity this year was writing an equipment and supply list for each course which has been disseminated to the schools for evaluation and revision.

C. Programs in Non-Depressed Areas

The total Concentration of Low Income Families (CLIF), points of 41 or less are classified as being in the non-economically depressed category. The data is based upon the current Department of Commerce 1980 Census Study for Low Income Families. See Table 11.

Non-Economically Depressed Areas
(by Local Education Agency)

Table 11

180 Catawba	292 Thomasville	110 Buncombe
181 Hickory	360 Gaston	111 Asheville
182 Newton	680 Orange	790 Rockingham
190 Chatham	681 Chapel Hill	791 Eden
760 Randolph	900 Union	792 Western Rockingham
761 Asheboro	901 Monroe	793 Reidsville
020 Alexander	410 Guilford	750 Polk
920 Wake	411 Greensboro	751 Tryon
130 Cabarrus	412 High Point	230 Cleveland
132 Kannapolis	600 Mecklenburg	231 Kings Mountain
550 Lincoln	340 Forsyth	232 Shelby
800 Rowan	840 Stanly	530 Lee
801 Salisbury	841 Albemarle	850 Stokes
010 Alamance	280 Dare	810 Rutherford
011 Burlington	450 Henderson	630 Moore
120 Burke	451 Hendersonville	860 Surry
490 Iredell	590 McDowell	861 Elkin
491 Mooresville	300 Davie	862 Mount Airy
492 Statesville	320 Durham County	620 Montgomery
140 Caldwell	321 Durham City	160 Carteret
290 Davidson	880 Transylvania	970 Wilkes
291 Lexington		

D. Support Services and Activities in Non-Depressed Areas

In 1985-86, we served a total of 60,415 students in the Consumer Home Economics program with 57% living in non-depressed areas. Attention was focused on identifying new curriculum or writing curriculum to implement the Curriculum Study. Four yearlong courses in the areas of Parenting and Child Development, Clothing and Textiles, Interior Design and Housing, and Foods and Nutrition were written. Curriculum guides from other states were selected for two comprehensive courses.

III. D. (continued)

Schools received technical assistance primarily through Regional Leadership Council Meetings, FHA/HERO Proficiency Events, program reviews, and curriculum workshops. The State Home Economics staff, regional coordinators, and vocational directors provided this technical assistance for home economics teachers. A Summer Vocational Workshop, drawing 511 teachers, was held for four (4) days on issues such as Integrating the Basics in Home Economics, Energy Efficient Home Decorating, Teenage Parenting, and Teen Suicide and Trauma.

The student organization FHA/HERO held a leadership conference in all eight (8) regions, as well as a state meeting. Twenty-five proficiency events were held in all eight (8) regions, with student winners competing at a state event. Two hundred (200) students participated in proficiency events at the state meeting. Seventy (70) students and advisers participated in the National FHA/HERO Leadership Meeting. Approximately two thousand (2,000) students participated in the state leadership activities.

III. Consumer and Homemaking Accomplishments

The following projects reflect the services and activities provided by region for consumer and homemaking students in vocational education.

Region 1 - Estimated Expenditures (all fund sources) $12,500

Description of Services:

The teacher assigned Consumer and Homemaking months of employment was responsible for special services to pregnant teens at the junior and senior high schools.* Release time was scheduled to enable the teacher to provide counseling and instructional services to the target group to keep them enrolled in the regular day school program as long as possible. (An alternative school was available in the LEA; however, all courses provided at the base school were not available at the alternate site.) Homebound instruction, available for up to four (4) weeks, was provided prior to and/or following delivery. This enabled the student to maintain classwork and helped the transition back into the regular school setting.

*Individual participation was entirely voluntary and was conducted on a one-to-one basis.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Students served were able to continue regular studies and received special information appropriate to their needs not available through other school personnel. By staying in school, students were not forced to drop out due to the school policy relative to excess days missed. Furthermore, it was possible for the student to maintain credit for courses because they maintained enrollment in classes at the base school.

Region 2 - Estimated Expenditures (all fund sources) $20,000

Description of Services:

Consumer and Homemaking months of employment were utilized in a manner that provided a wide range of meaningful experiences for a class of "special needs" students at Goldsboro High School.

Consumer and Homemaking competencies were taught in a manner that provided for many more hands-on activities and student involvement than the regular program affords. This departure from normal and regular teaching strategies and methods appeared to work best for the students assigned to this class as a result of a thorough assessment of interests, abilities, and needs. IEPs were developed for the individual students and cooperatively the exceptional children's teacher and the Consumer Home Economics teacher assisted the students in mastering the competencies required. Results of various evaluation strategies were very positive.

III. Consumer and Homemaking Accomplishments (continued)

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

All students in the program remained in school and developed a very strong appreciation for school and learning. Two such classes will be scheduled for 1986-87 due to the success of the program in 1986.

Region 3 - Estimated Expenditures (all fund sources) $2,000 software and printer donated

Description of Services:

The home economics department at Carrington Junior High has one microcomputer (TRS 80 Model IV) and one printer in the classroom. Both home economics teachers share the computer. The teachers also have access to the computer lab in the media center. The computer lab is equipped with 20 microcomputers (Apple IIe) and is available upon request of the teacher. The main purpose of using the computer in the home economics department is to introduce students to the role of the computer in the home and in the workplace.

Presently, students have used the following types of programs: word processing, financial spreadsheets, tutorials and simulations and graphics.

At the beginning of the school year, a letter is sent to all of the parents explaining the use of the computer in the classroom. Students are also encouraged to apply for the position of computer assistant. The computer assistant is trained after school to use the various programs. His/her job is to assist the teacher in demonstrating the programs and helping the students use the programs in the classroom and in the lab.

The teachers also use the teacher utility programs. Programs such as Crossword Magic, Puzzles and Posters, Print Shop, and Grade Book have assisted the teachers. The teachers hope to add an authoring program in the future so they can write their own programs for the students.

In the near future, they hope to add a data management program and communications software to their inventory. They would like to add a modem so they can access the data bases to which Durham County has a subscription. Another plan is to establish a network among the home economics departments within the school system.

III. Consumer and Homemaking Accomplishments (continued)

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

The computer is used to enhance the subject matter of home economics. Its impact in the various subject areas are listed below:

Consumer Economics - Students use a word processing program to write letters of complaint and use the spreadsheet to establish family budgets.

Careers - Students are introduced to various computer terminology and the use of the computer in the future workplace is stressed.

Clothing - A clothing section game has been programmed by one of the students as a motivational and educational tool.

Housing - Students use a floor plan program with graphics to design a room and arrange the furniture.

Foods and Nutrition - Students analyze their diets using several different software packages on nutrition. They also use a tutorial to test their knowledge about different foods.

The computer is also used in the student organization, Future Homemakers of America. The reporter uses the word processor to merge letters to send to each member before each meeting. The scrapbook committee uses the word processing and graphics software.

Region 4 - Estimated Expenditures (all fund sources) $19,148.46

Description of Services:

Inservice training to counselors, vocational and academic teachers, project staff, and central office personnel was provided on two full days in November. This workshop focused on providing equal educational and occupational opportunities for all students. The counselor/coordinator employed for this Project PAVE (Progressive Avenues to Vocational Equity) provided further training, information, and materials to teachers and students related to equity issues from November until May. Instruments denoting attitudinal changes in traditional stereotyping roles were administered to workshop and other project participants

A six week Institute of Technology for thirty-six (36) selected students began on June 19. Vocational and academic education are correlated in a unique way during the Institute. Emphasis is placed on the application of practical and theoretical knowledge in technological occupations.

III. Consumer and Homemaking Accomplishments (continued)

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Instruments have indicated some success in changing traditional attitudes towards sex roles in the world of work. Post-assessment and student follow-up will determine the success of the Institute of Technology. However, preliminary student interviews indicate that many students are reconsidering their educational and occupational futures because of institute experiences.

Region 5 - Estimated Expenditures (all fund sources) $3,175

Description of Services:

1. Students are assessed with a self-assessment instrument as well as pre-test on all competencies. This information is used in planning instruction for the class and individuals.
2. Supplemental services provided are curriculum adaptation tailored to the target group but in a mainstream environment.
3. Individual guidance and counseling and career development is a part of the program for all students. The target group is given extra time as needed.
4. Counseling services to facilitate transition from school to post-school or employment is a part of the program and is taught to all targeted students.
5. Evaluation is based on competencies of Homemaking courses. Pre and post-tests are given. These tests are both, SDPI and teacher fabricated, made with some commercial test being used with purchased units. Project evaluation in cooking, sewing, and other Homemaking skills are evaluated by the teacher on an individual basis.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

The impact of these funds though a small part of our total budget is that the loss of funds would be the loss of one teacher to impact the target group.

The use of these funds do help in reaching students in areas of Sex Equity and single parent homemaker as well as potential drop-outs.

The Advisory Committee in this target school and the teacher have been most cooperative in reaching this group.

III. Consumer and Homemaking Accomplishments (continued)

Region 6 - Estimated Expenditures (all fund sources) Highest MOEs 4; Lowest 1.5

Description of Services:

Consumer and homemaking MOEs constitute only a small portion of the LEAs total MOEs. At the present there are no unusual or different consumer and homemaking programs. However, specific emphasis is being exerted in these programs to include instruction that will emphasize new and emerging occupational fields and occupations regarded as non-traditional for women along with information related to sex stereotyping and sex bias.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

Emphasis in areas of need as described above could not be provided without this fund source.

Region 7 - Estimated Expenditures (all fund sources) $ -0-

Description of Services:

In LEAs served by Duke Power, a program has been established to provide new appliances in home economics classrooms on an annual basis. Each year such appliances as refrigerators, microwaves, washers, and dryers are replaced by Duke Power with the LEA paying only the cost of the taxes on those items. As a result in many home economics classrooms, the most up-to-date equipment is available for students to use. This does not apply to equipment such as grills, etc., used in the Occupational Home Economics classrooms, rather it is general equipment used in Consumer Home Economics classes.

Region 8 - Estimated Expenditures (all fund sources) $10,963

Description of Services:

We have been able to improve and expand our career development activities in the area of Consumer and Homemaking.

IMPACT OF USE OF THESE FUNDS ON THE TARGET POPULATION:

These funds make it possible to have six full-time Consumer and Homemaking teachers.

Results and Accomplishments of Expending
Title II - Part A Federal Funds
VOCATIONAL EDUCATION OPPORTUNITIES
POSTSECONDARY

I. Vocational Education Opportunities Accomplishments

I. A. Handicapped

1. Number of handicapped receiving additional services in mainstream programs. (See Table 1)

2. Number of handicapped served in separate programs. (See Table 1)

3. Accomplishments in coordination with vocational rehabilitation and other programs.

The community and technical colleges of North Carolina are committed to serving the vocational educational needs of the adult handicapped population of the state. The first step in providing these services is to identify the target population. This identification is accomplished in part by:

a. Voluntary self identification through applications, registrations, and other reporting forms.
b. In-house assessment through testing, counseling and instructor feedback.
c. Referrals from Vocational Rehabilitation, JTPA, and high schools.
d. Cooperative agreements with Vocational Rehabilitation, Departments of Social Services, Community Action Agencies, and Mental Health Clinics.

The second step in providing the services to the handicapped population is assessment. A variety and sometimes combination of methods are used to assess the handicapped population. Some of these methods are:

a. Standardized instruments such as the Myers-Briggs type indicator, etc.
b. Interviews, observations and information passed on from referral agencies.
c. Computer software to diagnose students' learning problems.

Once handicapped students have been identified and their needs assessed, they are served by a variety of activities. These include but are not limited to:

a. Supplemental specialized counseling.
b. Development of placement test in Braille.
c. Tutorial, interpreter, notetaker, signers, readers and typing services are provided.
d. Referral services and pamphlets are produced that list services that are available to the handicapped.
e. Equipment such as large print typewriters, TDD's for the deaf, and tape recorders are routinely provided to the handicapped plus special parking and elevator keys are provided where required.

4. Description of successful activities that served handicapped.

One of the North Carolina Department of Community College's most successful programs for the handicapped is the Compensatory Education Program. It exemplifies the coordination with vocational rehabilitation, mental health, and other agencies.

Compensatory Education is a community college program designed specifically for mentally retarded adults. It is a program which includes lessons in math, social science, community living, consumer education, health and vocational education. The purpose of the program is to provide instruction for mentally retarded adults and other developmentally disabled adults who may benefit from the program. These adults may not have attended public schools, attended on a limited basis, or who simply need additional educational opportunities after leaving public school.

Until the introduction of the Compensatory Education program in community colleges, there was no statewide educational program designed for mentally retarded adults. Although several agencies serve mentally retarded adults, none has the educational responsibility for them. Mentally retarded adults may enroll in Adult Basic Education classes if they can make progress comparable to that of non-mentally retarded adults. For many adults with mental retardation, this program proved to be inappropriate.

The community college system, the primary provider of postsecondary adult education in North Carolina, has been providing this "Compensatory Education" for the state's mentally retarded adults for the past two years.

Compensatory Education was approved as a program by the State Board of Community Colleges in October, 1983. In early 1985, the program was offered at 56 institutions within the community college system. During 1984-85 approximately 5,067 adults were enrolled in the program. This figure represents less than three percent of the state's mentally retarded adults aged 18 and over (statistics from the North Carolina Division of Mental Health, Mental Retardation, and Substance Abuse, 1985). Classes are offered not only in sheltered workshops and Adult Development Activity Programs but also in group homes, community-based class sites and on community college campuses. Approximately ten percent of all Compensatory Education classes were offered last year in on-campus locations.

The Compensatory Education program of study was developed and field tested over a three year period. It consists of a series of task analyzed lesson plans with accompanying bibliography, suggested teaching strategies, and curriculum and materials evaluation guidelines. Subject areas include Language, Community Living, and Vocational Education. In FY 1986, the state of North Carolina provided $900,000 to support implementation of the program in community college institutions statewide.

I. B. Disadvantaged (Excluding LEP)

1. Number of disadvantaged individuals receiving additional services in mainstream programs. (See Table 1)

2. Number of disadvantaged individuals served in separate programs. (See Table 1)

3. Description of successful activities that served disadvantaged.

   a. Outreach - Identification - Assessment

      A sizeable portion of the individuals who come to community colleges in North Carolina are economically disadvantaged. Those who are most in need are identified through a variety of referral systems. Many are identified through optional student information forms provided at registration. Others are referred through social services agencies, the Employment Security Commission, JTPA, community action agencies, and similar groups. Some students are referred for special services by the institutions' financial aid offices. The standards for eligibility are established by the referral agency, Pell Grant application, or by comparing family income to the current OMB poverty guidelines.

Assessment is a vital step in the overall vocational education program especially for the disadvantaged population. Services used to assess interests, abilities, and special needs include: preadmission conferences; career and academic guidance; personal counseling; financial assistance counseling; and academic testing. Instruments used for assessment of academic and other needs include admissions placement tests, the Career Assessment Inventory, and the Myers-Briggs type indicator. Students are often referred to service provider agencies who, when appropriate, conduct further assessment. For example, some students are referred to the Employment Security Commission for GATB testing.

b. Supplemental Services

Supplemental counseling, tutoring, and special remedial programs are provided by the institutions to the economically and educationally disadvantaged student to assure their success. Most have well-developed learning resource centers and developmental studies programs. These programs have been emphasized as part of the North Carolina community college system's commitment to an open door that enables the student to start from where he or she is and progress through a continuum of basic skills to skill training and productive employment. Community college financial aid offices match needy students with a variety of scholarships and loans. Local sources fund some scholarships, and the state of North Carolina has created a scholarship fund which makes over 1,000 grants annually. Pell grants, business/industry scholarships, JTPA and other assistance is also made available to eligible students.

4. Achievements in serving the disadvantaged students in terms of improved access and services provided that contribute to success in the program.

A number of excellent models for providing services to disadvantaged students have been developed. Most institutions have counseling centers and provide tutoring, referral to outside agencies, and administration of interest inventories as well as counseling. Tutorial lab and peer tutoring approaches have been successful in helping students with academic and other difficulties. Instructors refer the students to counselors who discuss the problems with them and determine means of solving their problems.

Another model involves a tracking system to monitor the attendance and progress of the disadvantaged students in an attempt to assure successful completion of their programs. Another unique and valuable service to assure the success of the disadvantaged vocational education student is the establishment of a "writing center" which provides assistance with specific composition problems.

Often economically disadvantaged students are unable to stay in school without employment. Some institutions arrange cooperative education plans. Others provide job placement services or help the students secure services through the Employment Security Commission. Several institutions have been able to provide funds for transportation, child care, and other costs through foundation funds or linkages with JTPA or special single parent/homemaker funds.

Linkage with JTPA and county departments of Social Services are valuable aids in improving the access of the disadvantaged to programs. A number of local coordination efforts are being made. JTPA programs in the community college system are coordinated through a central office in the Department of Community Colleges. This office works closely with the vocational education coordinator. Both work through an interagency coordinating committee to develop productive relationships with other groups.

I. B. Limited English Proficient (LEP)

1. Number of LEP individuals receiving additional services in mainstream programs. (See Table 1)

2. Number of LEP individuals served in separate programs. (See Table 1).

3. Description of successful activities that served LEP.

The majority of the adults receiving assistance under vocational education act LEP provisions in North Carolina are concentrated in or around the large military bases that are located here in North Carolina. Vietnamese, Hispanics, and Koreans are the three most prevalent of the LEP populations though other nationalities are represented.

Identification, outreach, and recruitment of those eligible for LEP assistance is accomplished by self-identification, peer referral or recruiter/counselor referral. Several institutions use native language speakers to recruit and refer individuals for assistance. Others are identified during the regular registration process. Supplemental services were provided the LEP such as:

a. English as a second language class.
b. Tutoring in native language.
c. Translations of technical texts into native language.

4. Achievements in serving the LEP students.

The North Carolina system of community and technical colleges enrolled 3,119 LEP individuals during the 1985-86 fiscal year. The majority of these students were enrolled in English as a second language program which when successfully completed enabled the student to succeed in vocational education. Special interpreters, tutors, and remedial programs also contributed to improved access and success in vocational education programs for LEP individuals.

The heavy concentration of LEP individuals around the large military bases in North Carolina is due in part to the large number of military dependents of foreign nationalities. Another factor in that concentration is the fact that a large number of the foreign born spouses of military personnel sponsor other members of their families or friends to immigrate into the United States.

I. C. Adults in Need of Training and Retraining

1. Achievements in serving adults who need training or retraining.

North Carolina has one of the largest and most comprehensive postsecondary vocational education systems in the nation. The primary mission of the system has always been the delivery of technical and vocational programs and basic education to adults. With 58 institutions serving over 82,000 full time equivalent enrollments in occupational programs each year, the North Carolina community college system is a model for postsecondary vocational education.

A majority of the students in both curriculum and extension programs are adults who have been out of high school for several years. The average age is 28, and a majority of students are working part or full time.

The community college system has been very successful in retraining adult workers through many types of programs and this success has been a major factor in North Carolina's economic growth. The existence of an accessible, low-cost, high quality system of community and technical institutions is a major drawing card for business and industry, and the state's program for attracting industry through customized training efforts is a model that has been studied and duplicated by other states.

2. Coordination activities with the JTPA and the private sector.

The North Carolina community college system has a history of coordination with the private sector. The majority of the members of the State Board of Community Colleges are from the private sector. Occupational curriculum programs are required to have advisory committees with private sector members. At the state level, a recent series of meetings drew together private sector leaders from across the state to discuss the future of each of twelve industries and the role of community college training in their futures. This information is being used in policy making and planning.

Businesses have donated over $9 million in usable equipment over the last five years. Private sector companies have also supported the system by helping to keep instructors up to date. For example, IBM offered updating sessions on electronics for instructors from institutions across the state.

Coordination with JTPA is supported by a state-level technical assistance staff who help institutions establish and operate quality programs. JTPA funds are often used in conjunction with vocational education and other funds to support skills training for the disadvantaged through special classes or mainstreaming of eligible participants. JTPA dislocated workers funds have been combined with vocational education and other funds to offer programs developed for the workers of several major plants which have closed.

At the state level, the vocational education coordinator and the JTPA coordinator work together closely. The state level interagency coordinating committee of the Job Training Coordinating Council is another mechanism for insuring that the programs are complementary.

I. D. Single Parents and Homemakers

1. Number of single parents and homemakers served at secondary level. (See Table 1)

2. Number of single parents and homemakers served at postsecondary/adult level. (See Table 1).

3. Achievements in providing services to both populations.

The increasing numbers of single parents and homemakers in the population, and the fact that they are often in need of skills training to enter or reenter the workforce, has led a number of institutions to target special advertising to this group. Extra efforts have also been made to establish referral mechanisms with agencies and community groups which serve these individuals. Institutions typically work with the county departments of social services, the county commissions on the status of women, and women's centers. Another important referral source is the institutions' own developmental studies programs, which have been placing more emphasis on a continuum of learning from basic literacy through skills training.

Most institutions used a voluntary self-identification referral form to identify students in this and other target groups. Through self-referral, instructor and counselor identification, and through specific contacts with department heads in programs enrolling a high percentage of female students, institutions established a clearer picture of the numbers of students who meet the definition of single parent or homemaker. Several institutions reported that 20 percent of their students qualified.

The size of this population led a number of institutions to develop specialized recruitment, counseling and support services to meet the needs of these students as a group, in addition to the individualized assessment and counseling services being offered. The provision of extra support services seems to be a key in insuring the success of these students, who are often under significant stress.

Single parents and homemakers generally were targeted by financial aid offices for assistance through a variety of resources. Women seeking training in non-traditional careers were identified as a target group for financial aid offered through state-endowed scholarships. Locally funded assistance, Pell grants and loan programs were also used to address the needs of this group.

Child care was identified as one of the most significant needs of this population. Funds were set aside for grants to institutions to develop innovative programs for offering child care to single parents and homemakers to facilitate their entry into or completion of training programs. Approximately 200 children of single parents were given care in programs which often added special support services and assistance with other costs, such as transportation. Child care is receiving increased attention at the state level as a problem preventing many people, especially single parents, from obtaining the training they need to be independent.

4. Special delivery methods used that are unique and/or effective.

Several recipients of single parent funds held specialized workshops to focus on the problems of single parents. One was entitled: "The Single Parent as Student: Discipline Under Stress." It featured sessions on time and financial management, legal affairs, building support networks and parenting skills. Similar workshops were held at other institutions, often as a special service to parents whose children were receiving care through the institutions' child care programs.

The child care programs featured different delivery mechanisms depending on the needs and resources of the local communities. Several entered into agreements with local private care providers to take children of qualified students. The college paid the cost or a portion of the cost depending on the ability of the student to pay. Others provided care on campus. Most were able to establish relationships with the county departments of social services for referral and to arrange for county funds to pay child care costs when funds were available. A substantial majority of the students involved in these programs asserted that they would be unable to attend school without the assistance provided through the program.

5. Method of determining the greatest financial need and number serviced who met the criteria.

Recipients have established relationships with JTPA and departments of social services. Their established processes for determining eligibility are also frequently used by institutions to determine financial need. Pell grant applications and interviews with financial aid counselors are also used. Numbers served with significant financial needs are not now available, but research has shown that the majority of our students are from lower income groups.

I. E. Student in Non-Traditional Programs (Sex Equity)

1. Achievements and services provided to reduce sex bias and sex stereotyping in vocational programs.

The sex equity grant program served approximately 2,000 participants at twelve institutions with an approximate cost of $185,000. Some of these grants provided career exploration and introduction to training options in a community service format. Others provided funds to mainstream students in non-traditional curriculum areas with support services to increase chances of successful completion. Funds were provided for individualized counseling, books, transportation and day care.

Participant evaluations revealed that 80 to 90 percent rated the activities from very good to excellent. Hands-on experience in non-traditional programs rank high. So also did sessions in goal setting, assertiveness, and personality exploration. Private counseling sessions were a special boon to women in both the community service projects and in the non-traditional mainstream grants.

2. Cooperative efforts with the private sector.

Cooperative education programs, which enable a student to work and earn while learning a skill, is often a component of the non-traditional programs. In addition, a number of occupational programs have been specifically designed to fill employer needs. For example, in one area several electronic companies have joined to sponsor classes in wafer fabrication, optical fiber processing and operator training. Through the Private Industry Council and JTPA, women have been especially targeted for slots in these training programs. Classes are also offered at worksites. Other successful activities have included coordinated efforts involving chambers of commerce or apprenticeship programs.

I. F. Criminal Offenders in Correctional Institutions

1. Numbers served through programs in correctional institutions. (See Table 1)

2. Names and addresses of institutions participating:

Central Carolina TC
1105 Kelly Drive
Sanford, NC 27330
(919) 755-5401
Dr. Marvin Joyner, Pres.

Cleveland TC
137 S. Post Road
Shelby, NC 28150
(704) 484-4000
Dr. James Petty, Pres.

Edgecombe TC
P. O. Box 550
Tarboro, NC 27886
(919) 823-5166
Charles B. McIntyre, Pres.

James Sprunt CC
P. O. Box 398
Kenansville, NC 28349-0398
(919) 934-3051
Dr. Carl D. Price, Pres.

Lenoir CC
P. O. Box 188
Kinston, NC 28501
(919) 527-6223
Dr. Jesse McDaniel, Pres.

Mayland TC
P. O. Box 547
Spruce Pine, NC 28777
(704) 765-7351
George Fouts, Acting Pres.

Stanly TC
Route 4, Box 55
Albemarle, NC 28001
(704) 982-0121
Dr. Charles Byrd, Pres.

Surry CC
Box 304
Dobson, NC 27017
(919) 386-8121
Dr. Swanson Richards, Pres.

3. Types of programs provided and achievements.

The $219,416 in Carl D. Perkins money was awarded through a competitive grants process to eight community college institutions. This funding enabled them to enhance an already existing, comprehensive program of corrections education coordinated with the North Carolina Department of Corrections. The funds made it possible for 2,939 additional inmates to enroll in one of the following programs:

1. Basic/Remedial Education
2. Drafting (Architectural) and Design Technology
3. Carpentry
4. Horticulture
5. Masonry
6. Small Engine Repair
7. Welding
8. Food Service Management
9. Business Administration
10. Air Conditioning and Refrigeration
11. Electrical
12. Microcomputer Operations

Individual tutoring and counseling, in addition to individualized instruction, helped achieve the goals of the program. Degrees, diplomas, and certificates were awarded to inmates who completed the programs.

4. Additional funds expended for criminal offenders from the Carl D. Perkins Act, such as Title II-A, disadvantaged, or Title II-B.

   No additional Carl D. Perkins Act funds were expended for criminal offenders in vocational education.

Results and Accomplishments of Expanding
Title II-Part B Federal Funds
Vocational Educational Program Improvement,
Innovation, and Expansion

II. Program Improvement Accomplishments

In the division of the Carl D. Perkins Vocational Education funds in North Carolina between the secondary and postsecondary education systems, the postsecondary system (the Department of Community Colleges) did not receive any of the state's allocation of Title II B funds from the initial state grant. When the supplemental appropriation was divided, the postsecondary system received $57,795. However, due to the timing of this grant the decision was made to carry this money into the 1986-87 year. Although the North Carolina Department of Community Colleges chose not to expend this small amount of Title II B funds, it did embark on some significant activities that will result in improved programs as discussed below.

The North Carolina Department of Community Colleges has entered a contractual agreement with the Center for Urban Affairs and Community Service of North Carolina State University to perform two studies. The first was a detailed assessment of selected vocational programs. The study served to determine the possible causes of enrollment decline in the vocational programs of interest, and means by which the community colleges are or could be maintaining (or increasing) enrollment in these programs. Twelve community colleges offering the selected vocational programs were selected for study. The case studies entailed determining characteristics of instructors, students, and the selected programs; and collecting perspective information from administrative personnel, instructors, current and prior students, high school representatives, and community representatives from the geographic areas served by the colleges. The information was obtained from institutional records, surveys, interviews, and discussion groups. In addition, industry representatives were asked about their perceptions regarding current employment practices, employer relationships with community colleges, and means for improving the working relationship between employers and community colleges. The recommendations of this study are now under consideration by the Department of Community Colleges.

The second is a student follow-up survey which will be an integral part of the postsecondary evaluation process. The specific objectives of this study are: to conduct a study of retention and completion rates in curriculum (vocational and technical) programs offered by the community college system, to provide through interviews and informal case studies the reasons for the completion rates, and where appropriate to identify strategies for improving rates of completion. This study will involve 20 percent of the recipients of postsecondary Carl D. Perkins funds in North Carolina; it is an integral part of the vocational education evaluation process. The final results of this retention/follow-up study for 1985-86 will be available in December of 1986.

Another significant program improvement accomplishment for post-secondary vocational education is the implementation of curriculum standards, completed during the 1985-86 fiscal year.

All curriculum programs offered in the community college system must meet the curriculum standards adopted by the State Board of Community Colleges. The standards include a consistent title, code and description of the curriculum, which must be used in all publications. Additionally, each standard includes suggested job titles for which the curriculum is designed to provide training, the range of permissible quarter hour credits, course titles, and course content. All 58 institutions were involved in developing the standards and subsequently have revised all curricula presently offered to meet these standards. All curricula developed in the future will conform to a curriculum standard.